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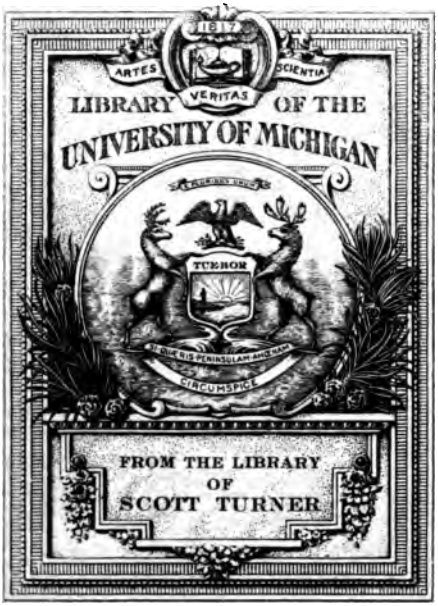
ON AND STEEL REPORT



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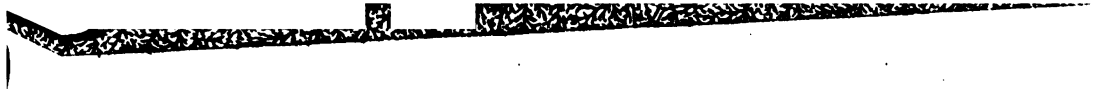

"I know no way of judging the future but by the past."—Patrick Henry.

METAL STATISTICS

1914.

SEVENTH ANNUAL EDITION.

Issued by
AMERICAN METAL MARKET AND DAILY IRON AND STEEL REPORT.

THE AMERICAN METAL MARKET COMPANY.
81 FULTON STREET, NEW YORK.

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PREFACE.

The seventh annual edition of "Metal Statistics" has been compiled with the same care that was exercised with previous editions. While the trade has already been kind enough to characterize "Metal Statistics" as practically complete in the ferrous and non-ferrous metal fields, for buyers and sellers as well as plant managers and engineers, a number of additions of interesting statistics have been made in the present issue.

For the statistics relating to the metal production in the United States we are indebted to the U. S. Geological Survey and acknowledgement is also made to the New York Metal Exchange, Henry R. Merton & Co., Metallgesellschaft and other authorities whose statistics have been used in this publication.

It is fitting that special acknowledgement be made to the American Iron and Steel Institute whence we secure all the tonnage output statistics of iron and steel. On January 1, 1913, Mr. James M. Swank retired, full of years and honor, as manager of the American Iron and Steel Association, and the excellent organization he had built up became the Bureau of Statistics of the American Iron and Steel Institute.

Attention is directed to the fact that our monthly averages of prices of iron and steel and metals are based upon the daily quotations published in the "American Metal Market and Daily Iron and Steel Report."

B. E. V. LUTY,
C. S. J. TRENCH,
Editors.

New York, January 19, 1914.

CONTENTS.

IRON AND STEEL.

Page.

ORE.

Lake Superior shipments 18
Prices, Lake Superior 21
Production, Lake Superior and total 19
Stocks on Lake Erie docks 19

PIG IRON.

Analyses, standard 53
Anthracite foundry prices, 1844 to 1895 51
Basic prices, valley, by months 44
Basic prices, Philadelphia 50
The basic average, 1905-1913 43
The Bessemer average, 1903-1913 41
Bessemer prices, by months, 1886-1894 38
Bessemer prices, by months, 1895-1902 39
Bessemer prices, by months, 1908-1913 44
Charcoal prices, 1799 to 1849 50
Composite pig iron ..... 12 and 13
Foundry prices, Birmingham, by months ... 49
Foundry prices, Buffalo, by months 47
Foundry prices, Chicago, by months 49
Foundry prices, Cleveland, by months 47
Foundry prices, Philadelphia, by months ... 48
Foundry prices, valley, by months 45
Miscellaneous prices 13
Production, by grades 31
Production, by half years 33
Production, with decennial totals 29
World's production 35

STEEL.

Billet prices, by months, 1891-1913 .. 55 and 57
Production of ingots and castings 103

FINISHED PRODUCTS.

Can prices, dates 101
Composite finished steel 15
Index steel prices 11
Iron bar prices ..... 66, 67, 69 and 71
Nail production, cut and wire 81
Official prices, bars, plates, shapes 59
Pipe discounts, 1900-1913 77
Pipe list 75
Plate prices ..... 59 and 63
Rods, monthly and yearly prices 54
Rivets, monthly prices 83
Hoops, bands and cotton ties 73
Production of rolled iron and steel .. 105 and 107
Sheet and plate production 85
Sheet products, prices ..... 87, 89 and 91

CONTENTS.

IRON AND STEEL.

Page.

FINISHED PRODUCTS. (Continued).

Steel bar prices ..... 59 and 65
Structural shape prices ..... 59 and 61
Shafting discounts 83
Tin plate and black plate production 93
Tin plate price changes, dates 95
Tin plate prices, New York 97
Tin plates, imports and exports ..... 99.
Wire nail cards 81
Wire products, high and low prices 79

SCRAP.

Bundled sheet, Pittsburgh 110
Chicago prices by years 116
Heavy melting steel, Chicago 113
Heavy melting steel, Philadelphia 115
Heavy melting steel, Pittsburgh 109
No 1 cast, Pittsburgh 112
No. 1 wrought, Pittsburgh 111
No. 1 cast, Chicago 116
Rerolling rails, Chicago 116

MISCELLANEOUS.

Cast iron pipe prices, New York 52
Connellsville coke, from the "Courier" 25
Connellsville coke prices, by months 23
Coke production in United States 26
Coke, number of ovens operating 26
Ferromanganese prices, by months 37
Good and bad years, graphic, 1873-1913 ... 121
Iron and steel duties 125
Iron and steel exports 27
Production estimates for 1913 17
Railroad statistics 123
Total production through 1912 17
U. S. Steel Corporation statistics 117, 118 and 119

METALS.

COPPER.

Production of mines and smelters.. 141, 143,145
Production of refineries 149
World's production ..... 139, 146 and 147
Total production since 1800 139
Consumption in the United States .. 150 and 159
Consumption in Europe 166
Copper Producers' statistics for 1913 148
Stocks of copper in United States .... 154 to 157
Foreign stocks of copper ..... 153 to 157

CONTENTS.

METALS.

Page.

COPPER. (Continued).

Exports of copper ..... 151, 161 and 162
Imports of copper 163
Lake copper prices ..... 167, 169 and 171
Electrolytic prices 173
Casting prices 175
Waterbury average 177
Sheet copper price changes 181
Foreign copper prices ..... 184 to 187
Foreign visible supply 165
Production according to grades 160
Analysis of Producers' statistics .... 152 and 153
Fluctuations in world's visible supply. 154 to 157
Standard prices, London, by months 187
Stocks in Hamburg and Rotterdam 153
Comparison of domestic and foreign prices.. 178
High sheet brass prices 179
Consumption of iron and copper compared.. 183

TIN

World's production 189
World's consumption 191
Consumption in United States 195
Deliveries in London 196
Deliveries in Holland 197
Shipments from the Straits 192
Banca sales 193
Stocks of tin in United States 201
Visible supply of tin 199
Imports of tin 203
Straits tin prices in New York .... 205 and 207
Foreign tin prices ..... 208 to 211
Classification of imports 203
World's stocks of tin 201
Analyses 202

LEAD.

Production of lead in U. S. ... 213, 214 and 215
World's production 216
Consumption in United States .... 218 and 219
Lead prices in New York ..... 221, 223 and 227
Lead prices in St. Louis 225
Lead price changes 223
Domestic and foreign prices compared 229
Foreign lead prices ..... 229 and 231
Lead ore shipments from Joplin 254
World's consumption 217

CONTENTS.

METALS.

Page.

SPELTER.

World's production 233
Production in the United States 235, 237 and 239
Joplin zinc ore shipments 254
Consumption in United States .... 242 and 243
Spelter prices in New York ..... 247 and 251
Spelter prices in St. Louis 249
Waterbury average 256
Foreign prices ..... 258 and 259
Sheet zinc price changes 253
World's production of secondary spelter 240
Foreign and domestic prices compared 258
Exports of zinc ore from New South Wales.. 256
Grades of spelter 245
Zinc ore prices 255
Zinc smelting capacity 257
Imports and exports 241

ALUMINUM.

Production, consumption of aluminum in U. S. 261
Aluminum prices in New York 263
World's production 265
Aluminum prices in Europe 263

ANTIMONY.

Production of antimonial lead 266
Imports of antimony 266
Cookson's prices 267
Halletts' prices 268
Hungarian prices 269

SILVER.

Production in United States 270
Silver prices in New York 271

MISCELLANEOUS.

Gold production ..... 272 and 273
Production of secondary metals .... 276 and 277
Metal duties 127
English-American price equivalents.. 283 to 285
Value of metallic products of United States. 280
Composite metal price ..... 136 and 137
Metal prices in 1913 ..... 129 to 135
Quicksilver prices 274
Platinum prices 274
Commodity prices 275
Security prices ..... 278 and 279
Our foreign trade 281

LIST OF ADVERTISERS.

	Page.
Ajax Metal Co.,	176
Allegheny Steel Co.,	62
Aluminum Company of America	260
American Can Co.,	100
American Metal Co,	142
American Sheet and Tin Plate Co.,	90
American Zinc, Lead & Smelting Co.,	236
M. E. Appelbaum	138
Balbach Smelting & Refining Co.,	142
Banning, Cooper & Co., Ltd.,	42
Beer, Sondheimer & Co.,	232
S. Birkenstein & Sons	158
Bradford Co.,	264
Brier Hill Steel Co.,	104
Brookmire Economic Service	122
Brooks Solder & Metal Works	206
Bruce & Cook	126
Cambria Steel Co.,	106
Carnahan Tin Plate & Sheet Co.,	92
Carnegie Steel Co,	56
C. L. Constant Co.,	226
Dickerson, Van Dusen & Co.,	206
Eagle Smelting & Refining Works	212
Follansbee Bros Co.,	120
A. Gilbert & Sons Brass Fdy. Co.	128
Glasgow Iron Co.,	58
Goldschmidt Detinning Co.,	200
Goldschmidt Thermit Co.,	176
Granby Mining & Smelting Co.,	246
Grasselli Chemical Co.,	248
Guiterman, Rosenfeld & Co.,	262
Geo. J. Hagan	84
Harbison-Walker Refractories Co.,	28
Hendricks Bros.	180
J. H. Hillman & Sons Co.,	24
Illinois Zinc Co.,	252
Jones & Laughlin Steel Co.,	14
La Belle Iron Works	74
Lackawanna Steel Co.,	60
C. W. Leavitt & Co.,	264
Marks Lissberger & Son	220
McKeesport Tin Plate Co.,	102
Magnus Metal Co.,	140
Market and Fulton National Bank	182
Matthiessen & Hegeler Zinc Co.,	250
Mohawk Mining Co.,	170
More-Jones Brass & Metal Co.,	204
Morrison, Kekewich & Co.,	164

LIST OF ADVERTISERS.

	Page.
O. J. Mousette Co., Inc.,	282
Nassau Smelting & Refining Works	144
National Tube Co.,	76
New Jersey Zinc Co.,	244
B. Nicoll & Co.,	68
Page Woven Wire Fence Co.,	10
Parkersburg Iron & Steel Co.,	88
Phelps, Dodge & Co.,	172
Phillips Sheet & Tin Plate Co.,	94
Pittsburgh Steel Co.,	78
Portsmouth Steel Co.,	32
Primos Chemical Co.,	226
Quincy Mining Co.,	168
W. J. Rainey	22
Reeves Manufacturing Co.,	124
Republic Iron & Steel Co.,	64
Richards & Co.,	188
Riverside Metal Refining Co.,	222
Thomas Robertson & Co., Ltd.,	230
Rogers, Brown & Co.,	46
Frank Samuel	114
Sandoval Zinc Co.,	238
A. Seligmann	190
Sharon Steel Hoop Co.,	30
W. P. Snyder & Co.,	20
Standard Tin Plate Co.,	194
J. R. Stanton	170
Stark Rolling Mill Co.,	82
Supplee-Biddle Hardware Co.,	174
C. Tennant Sons & Co.,	36
Tottenville Copper Co.,	144
C. S. Trench & Co.,	198
Trimble, Mudge & Co.,	108
Nathan Trotter & Co.,	168
Trumbull Steel Co.,	16
U. S. Smelting Works	128
L. Vogelstein & Co.,	234
Vulcan Detinning Co.,	70
John Wahl Commission Co.,	224
Walter-Wallingford & Co.,	40
Washington Tin Plate Co.,	96
West Leechburg Steel Co.,	72
West Penn Steel Co.,	86
Wheeling Corrugating Co.,	34
Wheeling Sheet & Tin Plate Co.,	98
White & Bro.,	170
Wolverine Mining Co.,	170
Youngstown Iron & Steel Co.,	80

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Reinforcing Fabric
High Carbon Spring Wire
Galvanized Wire Plain Wire
Wire Rods
Steel Ingots

We make a Specialty of

HIGH CARBON STEEL RODS AND WIRE

INDEX STEEL PRICES.

Average price per gross ton obtained by weighting each price proportionate to tonnage output in 1906.

	Per-centage.	Average 1892.	Low 1897-8.	Average 1902.	Low. 1904.	High. 1907.	Low. 1909.	High. 1910.	Low. 1911.	High. 1912-3.	Jan. 1, 1914.
Rails	22.6	30.00	16.00	28.00	28.00	28.00	28.00	28.00	1.25	1.25	1.25
Shapes	11.5	2.00	.95	1.60	1.40	1.70	1.10	1.55	1.10	1.50	1.20
Plates	13.3	1.90	.95	1.60	1.40	1.70	1.10	1.55	1.10	1.50	1.20
Sheets	6.7	2.90	1.90	3.00	2.10	2.55	2.15	2.40	1.80	2.35	1.80
Tin plate ...	3.3	5.00	2.50	3.95	3.25	3.85	3.40	3.60	3.30	3.60	3.40
Pipe	9.3	3.00	1.60	3.15	2.00	2.70	2.00	2.10	1.80	2.10	1.95
Bars	18.3	1.60	.90	1.60	1.30	1.60	1.05	1.50	1.05	1.40	1.20
Hoops	3.0	2.00	1.10	2.00	1.65	2.00	1.35	1.60	1.25	1.60	1.40
Wire (nails)	12.0	1.85	1.25	2.05	1.60	2.05	1.60	1.85	1.50	1.80	1.55
Average: Pound		2.06	1.10	1.90	1.54	1.85	1.42	1.70	1.36	1.65	1.44
Gross ton		46.11	24.71	42.61	34.56	41.48	31.86	37.98	30.51	36.88	32.30

COMPOSITE PIG IRON.

Composite pig iron is a convention devised by the American Metal Market to show at one glance the bulk movement of all pig iron. This price of composite pig iron is thus computed (for January 1, 1914):

One ton Bessemer, valley	$14.25
Two tons basic, valley (12.50)	25.00
One ton No. 2 foundry, valley	13.00
One ton No. 2X foundry, Philadelphia	14.50
One ton No. 2X foundry, Buffalo	13.00
One ton No. 2 foundry, Cleveland	13.50
One ton No. 2 foundry, Chicago	14.50
Two tons No. 2 Southern foundry, Cincinnati (13.75)	27.50
Total, ten tons	$135.25
One ton	**$13.525**

Composite pig iron averaged from daily quotations:

	1909.	1910.	1911.	1912.	1913.
Jan...	16.266	17.598	14.375	13.420	17.391
Feb..	15.998	17.215	14.340	13.427	17.140
Mar..	15.414	16.702	14.425	13.581	16.775
April.	14.854	16.315	14.375	13.779	16.363
May .	14.854	15.750	14.242	13.917	15.682
June .	15.129	15.320	14.032	14.005	14.968
July .	15.485	15.131	13.926	14.288	14.578
Aug. .	16.027	14.727	13.874	14.669	14.565
Sep. .	17.041	14.612	13.819	15.386	14.692
Oct. .	17.919	14.435	13.692	16.706	14.737
Nov..	17.955	14.415	13.532	17.226	14.282
Dec..	17.776	14.408	13.430	17.475	13.838
Year.	16.227	15.552	14.005	14.823	15.418

COMPOSITE PIG IRON.

Conventional averages,

1890	17.00	1902	19.89
1891	14.82	1903	17.75
1892	13.48	1904	13.34
1893	12.20	1905	15.96
1894	10.39	1906	18.84
1895	11.71	1907	22.49
1896	11.14	1908	16.02
1897	9.98	1909	16.23
1898	10.41	1910	15.55
1899	17.34	1911	14.00
1900	17.82	1912	14.82
1901	14.35	1913	15.42

PIG IRON.

(Annual Averages of Quotations).

	No. 1 Fdy. Phila.	Bess. Pitts.	So. Fdy. Cin'ti.	Fdy. Chi'go.	L.S.Chl. Chi'go.
1891..	17.52	15.87	13.75	14.95	....
1892..	15.75	14.28	12.65	13.88	....
1893..	14.52	12.68	11.35	12.80	16.12
1894..	12.66	11.06	9.40	10.56	14.75
1895..	13.10	12.73	11.25	11.80	13.75
1896..	12.95	12.00	10.29	11.65	13.62
1897..	12.10	9.98	9.33	10.68	13.00
1898..	11.66	10.31	9.46	10.97	11.60
1899..	19.36	18.89	16.58	17.65	19.80
1900..	19.98	18.84	17.04	19.12	22.00
1901..	15.87	15.73	13.61	15.03	17.50
1902..	22.19	20.07	20.00	20.52	23.50
1903..	19.92	18.64	17.08	18.90	22.13
1904..	15.57	13.66	12.73	14.02	15.50
1905..	17.88	16.33	15.57	17.30	18.00
1906..	20.98	19.33	18.37	20.08	20.72
1907..	23.89	22.64	23.10	24.15	26.56
1908.	*17.33	17.03	15.83	17.25	20.25
1909.	*17.30	17.46	16.06	17.51	19.50
1910.	*16.87	17.16	14.85	17.10	18.69
1911.	*15.20	15.74	13.62	15.19	17.00
1912.	*15.98	15.04	14.96	15.77	16.75
1913.	*16.56	17.16	14.98	16.39	16.55

* No. 2 X.

Jones & Laughlin Steel Company

American Iron and Steel Works

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Philadelphia, Arcade Bldg.
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Detroit, 810 Penobscot Bldg.
St. Louis, Pierce Bldg.
New York, 165 Broadway.

COMPOSITE FINISHED STEEL.

Composite finished steel is a convention devised by the "American Metal Market" to show at one glance the bulk movement of prices of finished steel products, excluding rails, the groups being weighted according to their tonnage importance. The price of composite finished steel is thus computed (for January 1, 1914):

Pounds.	Group.	Price.	Extension.
2½	Bars	1.20	3.000
1½	Plates	1.20	1.800
1½	Shapes	1.20	1.800
1½	Pipe (⅜-3)	1.95	2.925
1½	Wire (nails)	1.55	2.325
1	Sheets (28 bl.)	1.80	1.800
½	Tin plates	3.40	1.700
10 pounds			15.350
	One pound		**1.5350**

Averaged from daily quotations:

	1909.	1910.	1911.	1912.	1913.
Jan. .	1.9250	1.8625	1.7415	1.5123	1.7737
Feb .	1.8538	1.8475	1.7520	1.4878	1.7625
Mar. .	1.6815	1.8475	1.7590	1.4790	1.7646
April	1.6490	1.8400	1.7600	1.5206	1.7743
May .	1.6050	1.8325	1.7510	1.5590	1.7786
June.	1.6150	1.7955	1.6817	1.5794	1.7719
July .	1.6670	1.7755	1.6701	1.6188	1.7600
Aug..	1.7125	1.7550	1.6394	1.6784	1.7400
Sep. .	1.7430	1.7470	1.6090	1.7086	1.7093
Oct. .	1.7900	1.7350	1.5461	1.7588	1.6779
Nov..	1.8240	1.7305	1.4814	1.7750	1.6203
Dec. .	1.8370	1.7380	1.4812	1.7789	1.5558
Year	1.7419	1.7922	1.6561	1.6214	1.7241

Approximate annual averages:

1897...	1.40	1903...	1.97	1909...	1.7419
1898...	1.40	1904...	1.77	1910...	1.7922
1899...	2.37	1905...	1.73	1911...	1.6561
1900...	2.26	1906...	1.90	1912...	1.6214
1901...	2.15	1907...	2.0578	1913...	1.7241
1902...	2.06	1908...	1.9815		

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Metal Ceiling

Tin Plate

Roofing Tin
Genuine Charcoal Iron Ternes
Long Terne Sheets
Bright Coke Tins
Bright Charcoal Tins
Fire Door Plate

Home Office and Works,

WARREN, OHIO

TOTAL PRODUCTION.

Estimated total production to January 1, 1913, and production in 1912; gross tons except in the case of nails, which are given in kegs of 100 pounds:

	1912.	Total through 1912.
Iron ore	55,150,147	920,000,000
Pig iron	29,726,937	475,000,000
Open-hearth steel*.	20,780,723	147,000,000
Bessemer steel* ...	10,327,901	188,000,000
Total steel*	31,251,303	339,000,000
Iron rails	...	10,700,000
Bessemer steel rails	1,099,926	61,300,000
Open-hearth steel rails	2,105,144	8,283,426
All steel rails	3,327,915	70,000,000
Wire rods	2,653,553	32,500,000
Structural shapes ..	2,846,487	29,000,000
Cut nails (kegs) ..	978,415	210,000,000
Wire nails (kegs) ..	14,659,700	212,000,000
Tin plates	962,971	8,600,000

* Ingots and castings.

ESTIMATES FOR 1913.

Iron ore	60,000,000
Pig iron	31,000,000
Steel	33,000,000

LAKE SUPERIOR ORE SHIPMENTS.

(Gross tons)

1854	3,000	1884	2,518,693
1855	1,449	1885	2,466,642
1856	36,343	1886	3,565,144
1857	25,646	1887	4,762,107
1858	15,876	1888	5,063,877
1859	68,832	1889	7,292,643
1860	114,401	1890	9,003,725
1861	49,909	1891	7,071,053
1862	124,169	1892	9,082,370
1863	203,055	1893	6,073,641
1864	243,127	1894	7,759,753
1865	236,208	1895	10,445,509
1866	278,796	1896	9,947,972
1867	473,567	1897	12,475,120
1868	491,449	1898	14,042,824
1869	617,444	1899	18,271,535
1870	830,940	1900	19,059,393
1871	779,607	1901	20,615,907
1872	900,901	1902	27,585,904
1873	1,162,458	1903	24,329,710
1874	919,557	1904	21,849,401
1875	891,257	1905	34,384,116
1876	992,764	1906	38,565,762
1877	1,015,087	1907	42,266,668
1878	1,111,110	1908	26,014,987
1879	1,375,691	1909	42,586,869
1880	1,908,745	1910	43,442,397
1881	2,319,469	1911	32,793,130
1882	2,965,412	1912	48,211,778
1883	2,352,840	1913 (est)	49,850,000

Totals From Opening

Opened.	Range.	In 1912.	Thro. 1912.
1854	Marquette	4,202,308	103,332,141
1877	Menominee	4,711,440	84,073,407
1884	Vermillion	1,844,981	33,262,473
1884	Gogebic	4,996,498	72,735,633
1892	Mesabi	32,047,409	279,046,125
1911	Cuyuna	305,111	452,542
——	Miscellaneous	104,031	1,191,969
	Through 1912		574,094,290
In 1913	(estimated)		49,850,000
	Through 1913		624,000,000

IRON ORE PRODUCTION.

(Gross tons)

	Lake Superior.	All other.	Total.
1893...	6,594,620	4,993,009	11,587,629
1894...	7,682,548	4,197,131	11,879,679
1895...	10,268,978	5,688,636	15,957,614
1896...	10,566,359	5,439,090	16,005,449
1897...	12,205,522	5,312,524	17,518,046
1898...	13,779,308	5,654,408	19,433,716
1899...	17,802,955	6,880,218	24,683,173
1900...	20,564,238	6,988,923	27,553,161
1901...	21,445,903	7,441,576	28,887,479
1902...	26,977,404	8,576,731	35,554,135
1903...	26,573,271	8,446,037	35,019,308
1904...	20,198,311	7,446,019	27,644,330
1905...	33,325,018	9,201,115	42,526,133
1906...	37,876,371	9,873,357	47,749,728
1907...	41,526,579	10,194,040	51,720,619
1908...	28,108,079	7,816,692	35,924,771
1909...	41,863,635	9,291,802	51,155,437
1910...	46,328,743	10,560,991	56,889,734
1911...	35,550,225	8,326,327	43,876,552
1912...	46,368,878	8,781,269	55,150,147
20 years	505,606,945	151,109,895	656,716,840

IRON ORE ON LAKE ERIE DOCKS.

	May 1st.	December 1st.
1904	4,534,103	5,763,399
1905	2,271,631	6,438,967
1906	1,791,090	6,252,455
1907	1,976,988	7,385,728
1908	5,480,300	9,526,003
1909	5,370,268	9,471,428
1910	5,444,080	9,797,980
1911	6,778,494	9,469,869
1912	5,881,245	10,078,255
1913	5,909,829	9,261,676

W. P. Snyder & Company

PITTSBURG

PIG IRON, COKE, ORE

PRODUCTS OF

The Shenango Furnace Company

LAKE SUPERIOR IRON ORE.

(On Lake Erie Dock).

	— Old Range —		— Mesabi —	
	Bess.	Non-Bes.	Bess.	Non-Bess.
1885	4.00	4.00		
1886	5.00	4.50		
1887	6.00	5.00		
1888	4.75	4.00		
1889	5.00	3.75		
1890	6.00	4.50		
1891	4.75	3.75		
1892	4.50	3.75		
1893	4.00	3.25		
1894	2.75	2.00	2.50	1.75
1895	2.90	2.25	2.25	1.90
1896	4.00	2.60	3.25	2.40
1897	2.65	2.25	2.10	1.80
1898	2.75	1.80	2.15	1.70
1899	2.80	2.00	2.25	1.90
1900	5.50	4.15	4.40	4.00
1901	4.25	2.85	2.75	2.35
1902	4.25	3.00	3.00	2.60
1903	4.50	3.60	4.00	3.20
1904	3.00	2.60	2.75	2.35
1905	3.75	3.20	3.50	3.00
1906	4.25	3.70	4.00	3.50
1907	5.00	4.20	4.75	4.00
1908	4.50	3.70	4.25	3.50
1909	4.50	3.70	4.25	3.50
1910	5.00	4.20	4.75	4.00
1911	4.50	3.70	4.25	3.50
1912	3.75	3.05	3.50	2.85
1913	4.40	3.60	4.15	3.40

Particularly 1894 to 1899 some grades sold at materially higher prices. Base ore content (natural state) 1906 and some previous years: Bessemer, 56.70; non-Bessemer, 52.80; 1907 and later: Bessemer, 55.00; non-Bessemer, 51.50.

W. J. RAINEY

Largest Independent Manufacturer of

STANDARD CONNELLSVILLE COKE

Quality First.

For more than thirty years, Rainey Connellsville Coke has been the standard by which all other coke has been compared.

Manufacturer Direct to Consumer.

As we sell nothing but coke made in our own ovens our customers are always assured of receiving nothing but

Rainey Standard Connellsville Coke.

GENERAL OFFICES

527 Fifth Ave., New York

CONNELLSVILLE COKE.

Prompt shipment f.o.b. ovens:

	Furnace					Foundry			
	1909.	1910.	1911.	1912.	1913.	1910.	1911.	1912.	1913.
January	1.70	2.60	1.40	1.88	3.85	3.05	2.00	2.10	4.30
February	1.65	2.25	1.47	1.84	2.60	2.75	2.10	2.15	3.10
March	1.55	2.00	1.57	2.04	2.47	2.60	2.15	2.50	3.15
April	1.43	1.80	1.58	2.53	2.20	2.40	2.10	2.75	3.15
May	1.45	1.70	1.50	2.37	2.15	2.25	2.00	2.65	3.00
June	1.50	1.65	1.45	2.21	2.20	2.20	1.95	2.40	2.90
July	1.55	1.65	1.45	2.34	2.50	2.15	1.90	2.50	2.90
August	1.75	1.65	1.53	2.25	2.50	2.15	1.90	2.45	3.00
September	2.30	1.60	1.50	2.42	2.37	2.15	1.85	2.85	2.90
October	2.80	1.55	1.50	3.46	2.10	2.10	1.85	3.75	2.75
November	2.85	1.45	1.50	3.95	1.88	2.00	1.90	4.20	2.65
December	2.85	1.50	1.68	4.00	1.77	2.00	1.95	4.50	2.60
Average	1.95	1.78	1.51	2.61	2.38	2.32	1.97	2.90	3.03

J. H. Hillman & Sons Co.

Oliver Building, Pittsburgh

Standard
Low Sulphur
Connellsville Coke

For Blast Furnaces and Foundries

ANNUAL SHIPMENTS

3,000,000 Tons

Send us your inquiries for either Spot Shipment or Contract.

ANY RAILROAD DELIVERY

CONNELLSVILLE COKE.

Compiled by Connellsville Courier; Connellsville and lower Connellsville region:

	Total Ovens.	Shipments Net tons.	Average Price.
1880	7,211	2,205,946	$1.79
1881	8,208	2,639,002	1.63
1882	9,283	3,043,394	1.47
1883	10,176	3,552,402	1.14
1884	10,543	3,192,105	1.13
1885	10,471	3,096,012	1.22
1886	10,952	4,180,521	1.36
1887	11,923	4,146,989	1.79
1888	13,975	4,955,553	1.19
1889	14,458	5,930,428	1.34
1890	16,020	6,464,156	1.94
1891	17,204	4,760,665	1.87
1892	17,256	6,329,452	1.83
1893	17,513	4,805,623	1.49
1894	17,834	5,454,451	1.00
1895	17,947	8,244,438	1.23
1896	18,351	5,411,602	1.90
1897	18,628	6,915,052	1.65
1898	18,643	8,460,112	1.55
1899	19,689	10,129,764	2.00
1900	20,954	10,166,234	2.70
1901	21,575	12,609,949	1.95
1902	26,329	14,138,740	2.37
1903	28,092	13,345,230	3.00
1904	29,119	12,427,468	1.75
1905	30,842	17,896,526	2.26
1906	34,059	19,999,326	2.75
1907	35,697	19,029,058	2.90
1908	37,842	10,700,022	1.80
1909	39,158	17,785,832	2.00
1910	39,137	18,689,722	2.10
1911	38,904	16,334,174	1.72
1912	38,884	20,000,873	1.92
1913	39,067	20,097,901	2.95

Shipments by quarters, 1913:

	Connellsville	Lower Con'ville.	Total.
1st	3,089,573	2,223,202	5,312,775
2nd	3,036,213	2,197,410	5,233,623
3rd	2,863,481	2,192,690	5,056,171
4th	2,377,021	2,118,311	4,495,332
Total	11,366,288	8,731,613	20,097,901

COKE PRODUCTION IN UNITED STATES.

(Short tons)

	Beehive.	By-product.	Total
1893	9,464,730	12,850	9,477,580
1894	9,187,132	16,500	9,203,632
1895	13,315,193	18,521	13,333,714
1896	11,705,735	83,038	11,788,773
1897	13,027,072	261,912	13,288,984
1898	15,752,764	294,445	16,047,209
1899	18,762,035	906,534	19,668,569
1900	19,457,621	1,075,727	20,533,348
1901	20,615,983	1,179,900	21,795,883
1902	24,998,142	1,403,588	25,401,730
1903	23,391,887	1,882,394	25,274,281
1904	21,052,877	2,608,229	23,661,106
1905	28,768,781	3,462,348	32,231,129
1906	31,843,090	4,558,127	36,401,217
1907	35,171,665*	5,607,899	40,779,564
1908	21,832,292	4,201,226	26,033,518
1909	33,060,421	6,254,644	39,315,065
1910	34,570,076	7,138,734	41,708,810
1911	27,703,644	7,847,845	35,551,489
1912	32,868,345	11,048,489*	*43,916,834

NUMBER OF OVENS.

(In operative condition during year.)

	Beehive.	Retort.
1900	57,399	1,085
1901	62,786	1,165
1902	67,406	1,663
1903	77,378	1,956
1904	80,689	2,910
1905	84,461	3,103
1906	90,354	3,547
1907	95,996	3,684
1908	97,419	3,799
1909	99,993	3,989
1910	100,362*	4,078
1911	99,255	4,624
1912	97,019	5,061*

* *Maximum.*

IRON AND STEEL EXPORTS.

Tonnage lines exclude ore; include scrap, pig iron, unfinished steel rolled iron and steel, structural, wire and nails; pipes and fittings, etc.; non-tonnage lines include hardware, cutlery, machinery, etc., (electrical machinery prior to 1912); not agricultural implements, which are separately stated.

	Tonnage Gross tons.	Tonnage Value.	Non-tonnage Value.	Total Value.	Agricultural implements.
1898	901,427	$18,095,244	$64,676,306	$82,771,550	$9,073,384
1899	942,689	25,162,220	80,526,857	105,689,077	13,594,524
1900	1,154,284	42,518,072	87,115,408	129,633,480	15,979,909
1901	700,857	29,050,446	73,484,129	102,534,575	16,714,308
1902	372,398	20,996,450	76,895,586	97,892,036	17,981,597
1903	326,590	20,452,839	78,583,026	99,035,865	22,951,805
1904	1,167,710	42,551,109	86,002,504	128,553,613	21,654,892
1905	1,010,255	42,104,348	100,824,165	142,928,513	22,124,312
1906	1,325,740	52,215,089	120,340,499	172,555,588	24,744,762
1907	1,301,979	60,046,221	137,020,560	197,066,781	25,597,272
1908	964,242	43,397,323	107,715,791	151,113,114	25,264,939
1909	1,243,567	50,781,218	106,893,176	157,674,394	27,327,428
1910	1,540,895	63,276,714	137,995,189	201,271,903	31,291,351
1911	2,187,809	86,598,670	163,057,741	249,656,411	36,241,683
1912	2,948,466	112,534,577	176,593,843	289,128,420	41,436,327
1913*	2,830,000	114,000,000	188,000,000	302,000,000	33,000,000

* November and December estimated.

HARBISON-WALKER REFRACTORIES CO.

Manufacturers Of

Highest Grade Silica,
Magnesia, Chrome,
Fire Clay and
Acid-Proof Brick

Importers Of

Famous Spaeter Brand
Dead-Burned Magnesite
and Grecian Chrome Ore

General Offices:
PITTSBURGH, PA.

SALES OFFICES:
New York. Philadelphia. Chicago
Birmingham Pittsburgh
Cleveland Buffalo

U. S. PIG IRON PRODUCTION.

(Tons 2,240 lbs).

1823-32	1,200,000
1833-42	2,400,000
1843-52	5,500,000
1853-62	7,000,000
1863	846,075*
1864	1,014,282*
1865	831,770
1866	1,205,663*
1867	1,305,023*
1868	1,431,250*
1869	1,711,287*
1870	1,665,179
1871	1,706,793
1872	2,548,713*
1863-72	14,266,035
1873	2,560,963*
1874	2,401,262
1875	2,023,733
1876	1,868,961
1877	2,066,594
1878	2,301,215
1879	2,741,853*
1880	3,835,191*
1881	4,144,254*
1882	4,623,323*
1873-82	28,567,349
1883	4,595,510
1884	4,097,868
1885	4,044,526
1886	5,683,329*
1887	6,417,148*
1888	6,489,738*
1889	7,603,642*
1890	9,202,703*
1891	8,279,870
1892	9,157,000
1883-92	65,571,334
1893	7,124,502
1894	6,657,388
1895	9,446,308*
1896	8,623,127
1897	9,652,680*
1898	11,773,934*
1899	13,620,703*
1900	13,789,242*
1901	15,878,354*
1902	17,821,307*
1893-1902	114,387,545
1903	18,009,252*
1904	16,497,033
1905	22,992,380*
1906	25,307,191*
1907	25,781,361*
1908	15,936,018
1909	25,795,471*
1910	27,303,567*
1911	23,649,547
1912	29,726,937*
1903-12	230,998,757
1823-1902	238,892,263
1903-12	230,998,757
1823-1912	469,891,020

1913.
(Estimated)
31,000,000*

* Record years.

SHARON STEEL HOOP COMPANY

General Office and Works:

SHARON, PA.

Manufacturers of

STEEL HOOPS & STRIPS

Made to Any Specification

ALL WIDTHS from 3/8" to 15"
ALL GAUGES
ANY LENGTH

Our mills are especially adapted for supplying the requirements of the Cooperage and Woodenware trade
AND
Fine Hoops, Strips and Bands for Cold Rolling, Deep Stamping and all special purposes

Small Shapes, Ovals, Half Ovals and Bands, Corner Bead, Cold Formed Channels for Metal Studs

Open Hearth Billets and Sheet Bars

Branch Offices

Whitehall Bldg., New York City
Jno. Hancock Bldg., Boston, Mass.
1642 McCormick Bldg., Chicago, Ill.
612 Second Nat. Bank Bldg., Cincinnati, O.
807 Monadnock Bldg., San Francisco, Cal.
Harrison Building, Philadelphia, Pa.
Security Building, St. Louis, Mo.
207 North Peters St., New Orleans, La.

PRODUCTION OF PIG IRON BY GRADES.

(Tons of 2,240 pounds.)

Grades—	1900.	1905.	1909.	1910.	1911.	1912.
Bess. and low phos.	7,979,327	12,407,116	10,557,370	11,245,642	9,409,303	11,664,015
Basic (mineral fuel)	1,072,376	4,105,179	8,250,225	9,084,608	8,520,020	11,417,886
F'dy and ferro-sil..	3,376,445	4,758,038	5,322,415	5,260,447	4,468,940	5,073,873
Malleable	173,413	635,236	658,048	843,123	612,533	825,643
Forge pig iron	793,092	727,817	725,624	564,157	408,841	469,183
Spiegeleisen	207,505	227,797	142,831	153,055	110,236	96,346
Ferromanganese ...	48,472	62,186	82,209	71,376	74,482	125,378
White, mottled, direct castings, etc.	138,612	69,011	56,749	81,159	45,192	54,613
Totals	13,789,242	22,992,380	25,795,471	27,303,567	23,649,547	29,726,937

Basic Open Hearth Stee
Portsmouth Iron
Ohio Metal

Billets and Slabs, Sheared Plates, Blue Annealed Sheets, Galvanized Sheets, Galvanized Roofings . .

PORTSMOUTH
QUALITY
PRODUCTS

PortsmouthSteelC

General Offices & Works, Portsmouth, O. Executive Offices, Wheeling, W

SALES OFFICES:

Cincinnati, Union Trust Bldg.
Chicago, 168 N. Clinton St.
Detroit, Ford Building
St. Louis, Syndicate Trust Bldg.
Kansas City, Commerce Bldg.
Denver, Sugar Bldg.
San Francisco, 22 Battery St.
Los Angeles, Washington Bldg.
New Orleans, Q. & C. Bldg.
Chattanooga, James Bldg.
Louisville, Keller Bldg.
Richmond, Va. Ry. & Power Bldg.
Toledo, Ohio Bldg.

PIG IRON PRODUCTION.

U. S. Production—Tons 2,240 Pounds.

Years—	1st Half.	2nd Half.	Total.
1883	2,352,019	2,243,491	4,595,510
1884	2,024,126	2,073,742	4,097,868
1885	1,920,371	2,124,155	4,044,526
1886	2,637,687	3,045,642	5,683,329
1887	3,049,295	3,367,853	6,417,148
1888	3,020,092	3,469,646	6,489,738
1889	3,661,603	3,942,039	7,603,642
1890	4,560,513	4,642,190	9,202,703
1891	3,368,107	4,911,763	8,279,870
1892	4,769,683	4,387,317	9,157,000
1893	4,562,918	2,561,584	7,124,502
1894	2,717,983	3,939,405	6,657,388
1895	4,087,558	5,358,750	9,446,308
1896	4,976,236	3,646,891	8,623,127
1897	4,403,476	5,249,204	9,652,680
1898	5,869,703	5,904,231	11,773,934
1899	6,289,167	7,331,536	13,620,703
1900	7,642,569	6,146,673	13,789,242
1901	7,674,613	8,203,741	15,878,354
1902	8,808,574	9,012,733	17,821,307
1903	9,707,367	8,301,885	18,009,252
1904	8,173,438	8,323,595	16,497,033
1905	11,163,175	11,829,205	22,992,380
1906	12,582,250	12,724,941	25,307,191
1907	13,478,044	12,303,317	25,781,361
1908	6,918,004	9,018,014	15,936,018
1909	11,022,346	14,773,125	25,795,471
1910	14,978,738	12,324,829	27,303,567
1911	11,666,996	11,982,551	23,649,547
1912	14,072,274	15,654,663	29,726,937
1913	16,488,602	*14,500,000	*31,000,000

* Estimated.

WHEELING CORRUGATING COMPANY.

WHEELING, W. VA.

Manufacturers of

Galvanized Sheets

Flat and Corrugated

Roofings, Sidings Metal Ceilings

Tin and Terne Plates, Long Terne Sheets, Metal Lath, Conductor Pipe, Eaves Trough, Elbows, Shoes, Mitres, Hooks, Hangers, Etc.

Full Line of Accessories

Trade Marks and Brands

"Crescent," "Corco," "Wheeling," "Star," "Standard," "Virginia," "Texas," "Dixie," "Tennessee," "W. C. C. Co.," Etc., cover the products.

Mills:

Wheeling, W. Va., and Martins Ferry, O.

Warehouses:

New York, Chicago, Philadelphia, St. Louis, Kansas City, Chattanooga

Sales Offices:

Dallas Denver Detroit Los Angeles Portland Salt Lake City San Francisco Seattle

WORLD'S PIG IRON PRODUCTION.

(Reduced to tons, 2,240 lbs.)

	1850.	1890.	1900.	1910.	1911.	1912.
United States	563,755	9,202,703	13,789,242	27,303,567	23,649,547	29,726,937
Germany	350,000	4,584,882	8,381,373	14,559,509	15,404,648	17,586,521
Great Britain	2,300,000	7,904,214	8,959,691	10,012,098	9,718,638	8,839,124
France	405,653	1,931,188	2,669,966	3,974,478	4,309,498	4,870,913
Russia	227,555	912,561	2,889,789	2,992,058	3,531,807	4,133,000
Austria-Hungary ...	250,000	910,685	1,472,695	2,153,788	2,056,839	2,276,141
Belgium	144,452	775,385	1,001,872	1,822,821	2,072,836	2,307,853
Canada		19,439	86,090	740,210	824,368	912,878
Sweden	150,000	483,155	518,263	594,385	624,367	688,757
Spain		176,598	289,315	367,423	402,209	*400,000
Italy		14,094	23,569	347,657	298,144	373,960
Japan				186,794	*200,000	*200,000
Other countries	10,000	80,000	100,000	*250,000	*250,000	*250,000
Total	4,401,415	26,994,904	40,181,865	65,304,788	63,342,901	72,566,084

* Estimated.

Estimate for 1913 .... 76,000,000.

C. TENNANT SONS & CO.

of New York

100 WILLIAM STREET

New York City

SOLE AGENCIES

FERROMANGANESE 80%

Workington Iron & Steel Co. Ltd., England.

FERRO-SILICON 50% 75%

Electrolytic

European Maker

PIG IRON

Scotch "Glargarnock" and "Cambroe" brands.

"English" Workington Iron & Steel Co.'s Special Low Phos., Low Phos., Double Refined Malleable, Refined Malleable, Cylinder, Chilling, Softener.

Swedish for Chilled Rolls, for Chilled Casting, Gray Charcoal, White Charcoal.

English, Middlesboro Foundry and East Coast Hematite.

TUNGSTEN METAL POWDER 97%

COBALT METAL 98%

FERRO CHROME

Silicon-Manganese Alloy,
Aluminum-Manganese-Silicon
(A. M. S. Metal)

FERROMANGANESE.

Averaged from quotations, carloads to 100 tons, f.o.b. Baltimore.

	1907.	1908.	1909	1910.	1911.	*1912.	*1913.
January	77.00	47.50	45.50	44.25	38.25	41.00	65.00
February	71.00	45.50	43.50	43.60	37.75	41.00	64.00
March	73.00	44.00	41.50	42.75	37.30	41.00	64.00
April	69.00	43.00	42.00	41.00	36.75	42.54	61.00
May	67.00	43.50	41.00	40.75	36.50	47.25	61.00
June	63.00	45.00	40.00	39.75	36.50	48.50	61.00
July	61.00	44.50	41.50	39.25	36.85	49.27	59.00
August	60.00	43.50	41.75	39.25	37.00	51.56	56.70
September	57.00	43.00	42.75	39.40	36.50	56.02	54.50
October	54.00	42.75	43.50	38.85	37.00	60.28	†50.28
November	51.00	44.50	44.75	38.50	37.04	61.42	50.00
December	50.00	45.00	45.00	38.50	39.50	65.00	47.00
Average	62.75	44.31	42.73	40.49	37.25	50.40	57.87

* Contract prices. †Tariff off, October 4, 1913, $2.50.

BESSEMER PIG IRON PITTSBURGH.

Compiled from open quotations:

	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
January	20.00	21.55	18.10	16.75	23.60	15.85	15.69	13.46	10.66
February	19.65	22.65	17.80	16.35	22.55	15.87	15.31	13.32	10.61
March	19.25	22.85	17.35	16.50	20.25	16.55	14.60	13.63	10.40
April	19.00	22.70	17.25	16.25	17.85	16.05	14.47	13.65	10.39
May	19.00	21.25	16.55	16.00	17.55	16.56	14.27	13.41	12.00
June	18.40	21.25	16.65	16.00	19.00	15.94	14.05	13.37	12.31
July	17.85	22.00	17.10	16.35	18.62	16.33	14.00	13.07	11.70
August	17.70	21.60	17.15	17.50	18.10	15.85	13.85	12.57	11.71
September	17.70	21.15	17.95	18.00	18.00	15.56	13.78	12.16	11.29
October	18.85	20.65	18.00	20.75	17.35	15.45	13.65	11.44	10.89
November	19.55	19.75	17.50	21.75	17.00	15.12	13.98	11.17	10.61
December	20.60	19.00	17.15	23.75	16.60	15.28	13.75	10.87	10.20
Average	18.96	21.36	17.38	18.00	18.87	15.87	14.28	12.68	11.06

BESSEMER PIG IRON, PITTSBURG.

	Compiled from open quotations.				Compiled by Carnegie Steel Company. from actual transactions.			
	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
January	9.93	12.00	10.56	9.87	11.00	24.90	13.25	16.60
February	10.07	12.63	10.60	10.05	12.40	24.90	14.20	16.85
March	10.19	12.32	10.52	10.39	15.05	24.90	16.40	17.50
April	10.68	13.10	9.82	10.41	15.15	24.90	16.35	17.60
May	11.64	12.64	9.32	10.30	16.45	22.00	16.00	20.00
June	12.33	12.35	9.56	10.34	18.30	20.00	16.00	21.00
July	14.38	11.88	9.25	10.25	19.88	17.00	16.00	21.50
August	14.63	10.95	9.33	10.35	22.00	14.00	16.00	21.50
September	17.02	11.25	10.09	10.78	23.60	13.55	16.00	21.35
October	15.45	11.62	10.45	10.36	23.60	13.12	16.00	22.25
November	13.72	12.05	10.23	10.15	24.35	13.45	16.00	22.75
December	12.67	11.24	10.01	10.58	24.95	13.40	16.50	21.95
Average	12.73	12.00	9.98	10.31	18.89	18.84	15.73	20.07

Walter-Wallingford

and Company

PIG IRON
ALLOYS
COKE

Dinsdale Ferro Manganese
Ashland Ferro Silicon

OFFICES

CHICAGO, CINCINNATI
PITTSBURGH

THE BESSEMER AVERAGE.

As compiled monthly by W. P. Snyder & Company from the actual sales of standard Bessemer pig iron by valley furnaces. Prices are f.o.b. valley furnaces.

	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Jan..	20.80	12.91	15.56	17.32	22.07	18.10	16.44	19.00	15.00	14.078	17.25
Feb.	20.65	12.64	15.50	17.29	21.93	17.00	15.88	18.06	15.00	14.00	17.25
Mar.	20.06	13.00	15.50	17.27	22.05	16.96	15.44	17.58	15.00	14.0536	17.25
April	19.71	13.30	15.51	17.25	21.36	16.59	14.90	17.375	15.00	14.25	17.008
May	18.71	12.52	15.12	17.24	23.28	16.03	14.58	16.203	15.00	14.2345	16.780
June	18.79	11.60	14.85	17.38	23.25	16.00	15.23	15.62	15.00	14.25	16.2375
July	18.21	11.88	13.98	17.57	22.41	15.83	15.47	15.50	15.00	14.25	15.4085
Aug.	18.00	11.81	14.52	17.96	22.00	15.21	16.23	15.146	15.00	14.534	15.657
Sept.	16.21	11.79	14.95	18.44	22.00	15.00	17.43	15.02	15.00	15.962	15.75
Oct.	15.05	12.56	16.00	20.06	21.89	14.58	18.78	15.00	14.537	17.00	15.7030
Nov.	14.08	14.13	17.01	21.96	19.75	15.84	19.00	14.94	14.02	17.172	15.125
Dec.	13.20	15.63	17.26	22.07	18.88	16.50	19.00	15.00	14.194	17.2962	14.842
Av..	17.79	12.81	15.48	18.48	21.74	16.14	16.53	16.204	14.813	15.090	16.1884

Valley-Pittsburgh freight advanced 75 to 85 cts. Jan. 1, 1903; to 90 cts. June 1, 1907.

Banning, Cooper & Co.

Limited,

PITTSBURGH.

COKE

FURNACE, FOUNDRY, HEATING
AND CRUSHED.

PIG IRON

BESSEMER. BASIC.
MALLEABLE.

STEEL

BESSEMER AND OPEN-HEARTH
BILLETS
SLABS AND SHEET BARS.

THE BASIC AVERAGE.

As compiled monthly by W. P. Snyder & Company from the actual sales of basic pig iron by valley furnaces. Prices are f.o.b. valley furnaces.

	1905.	1906	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January .	15.25	17.00	22.00	17.10	15.50	16.875	13.291	12.372	16.45
February .	15.25	16.70	22.00	17.00	15.19	16.31	13.603	12.25	16.317
March ...	15.50	17.00	21.00	16.00	14.94	16.00	13.75	12.76	16.059
April	15.00	17.15	21.00	16.00	14.15	15.937	13.75	12.981	15.714
May	15.00	17.25	23.00	14.83	14.12	15.04	13.40	13.00	14.899
June	14.34	17.50	22.25	15.25	14.94	14.70	13.06	13.209	14.50
July	14.25	17.25	21.94	14.49	15.00	14.50	13.00	13.48	14.227
August ...	14.50	17.75	21.44	14.62	15.27	14.022	13.00	14.00	14.045
September	14.70	18.375	20.07	14.27	15.90	13.833	12.667	15.134	14.138
October ..	15.00	19.31	19.69	14.25	16.94	13.15	12.515	16.184	13.709
November	16.73	21.00	18.75	14.93	17.49	13.363	12.278	16.192	13.013
December.	16.50	23.00	18.00	15.50	17.00	13.466	12.442	16.449	12.523
Average ..	15.17	18.27	20.93	15.35	15.54	14.766	13.063	14.001	14.633

VALLEY BESSEMER AND BASIC PIG IRON.

Averaged from daily quotations, f.o.b. valley furnaces, ordinary deliveries.

	Bessemer						Basic					
	1908.	1909.	1910.	1911.	1912.	1913.	1908.	1909.	1910.	1911.	1912.	1913.
January.	17.94	16.28	19.00	15.00	14.19	17.25	16.17	15.50	16.75	13.50	12.33	16.50
February	16.96	15.83	18.25	15.00	14.00	17.25	15.98	15.33	16.25	13.50	12.26	16.43
March ..	16.97	15.50	17.75	15.00	14.11	17.20	15.98	15.86	16.00	13.75	12.77	16.14
April ...	16.50	14.89	17.40	15.00	14.21	17.00	15.42	14.20	15.95	13.75	13.00	15.87
May	16.00	14.87	16.25	15.00	14.24	17.00	15.03	14.14	15.25	13.34	13.00	15.25
June ...	15.99	15.23	15.75	15.00	14.25	16.34	15.25	14.70	14.75	13.03	13.10	14.50
July	15.69	15.50	15.54	15.00	14.26	15.86	14.96	15.00	14.61	13.05	13.42	14.40
August .	15.33	16.26	15.19	15.00	14.59	15.63	14.68	15.27	13.95	13.00	13.84	14.09
Sept. ..	15.05	17.54	15.00	15.00	15.35	15.75	14.30	15.94	13.61	12.85	14.32	14.00
October.	14.81	18.85	15.00	14.54	16.87	15.67	14.04	17.15	13.10	12.54	16.02	13.97
Nov. ...	15.81	19.00	15.00	14.24	17.10	15.23	15.19	17.19	13.25	12.44	16.28	13.28
Dec. ...	16.50	19.00	15.00	14.25	17.25	14.95	15.50	17.00	13.34	12.50	16.50	12.83
Average	16.13	16.56	16.26	14.84	15.04	16.26	15.21	15.52	14.73	13.10	13.90	14.77

VALLEY FOUNDRY IRON.

Averaged from daily quotations f.o.b. valley furnace, ordinary deliveries:

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	12.88	16.15	17.37	23.00	16.00	15.38	16.93	13.75	13.00	17.50
February ...	12.60	15.92	17.19	23.50	15.96	15.00	16.60	13.85	13.00	17.12
March	12.80	16 00	16.94	24.50	15.51	14.72	16.12	14.00	13.12	16.60
April	13.00	16.00	16.63	24.50	15.08	14.16	15.75	14.00	13.25	15.66
May	12.50	15.67	16.38	25.00	14.45	14.18	15.30	13.76	13.25	14.73
June	11.90	15.10	16.08	23.50	14.58	14.73	14.60	13.59	13.25	14.18
July	11.60	14.13	16.63	22.50	14.68	15.06	14.50	13.50	13.39	13.88
August	11.85	14.15	17.84	22.25	14.50	15.30	14.13	13.50	13.89	13.94
September .	11.90	14.50	18.38	21.10	14.50	16.13	14.00	13.50	14.49	14.00
October	12.57	15.47	19.54	19.40	14.50	17.12	13.95	13.41	16.09	13.83
November .	14.52	16.88	21.00	18.45	15.39	17.19	13.75	13.25	16.84	13.57
December ..	16.22	17.41	22.00	17.15	15.50	17.00	13.75	13.05	17.60	13.38
Average ..	12.86	15.62	18.00	22.07	15.05	15.50	14.95	13.60	14.26	14.87

ROGERS, BROWN
and COMPANY

Pig Iron
and
Coke

We represent 50 brands of PIG IRON produced in thirteen different States, also 30 brands of 72 hr. foundry and furnace COKE.

Thirty-three years' experience have made our service of exceptional value to every customer.

Ferro Manganese
"Roslolare" Fluor Spar

Buffalo	Chicago	Cincinnati
New York	Philadelphia	Boston
Cleveland	Pittsburgh	St. Louis

FOUNDRY PIG IRON—BUFFALO AND CLEVELAND.

	—Buffalo No. 2X f.o.b. furnace—					— Cleveland No. 2 delivered				
	1909.	1910.	1911.	1912.	1913.	1909.	1910.	1911.	1912.	1913.
January ...	16.25	17.25	14.25	13.62	17.25	16.75	17.80	14.25	13.25	17.75
February ..	16.10	17.15	13.90	13.75	16.97	16.25	17.45	14.15	13.25	17.44
March	15.60	17.00	14.25	13.75	16.54	15.55	16.80	14.00	13.25	16.75
April	15.25	16.50	14.00	14.00	15.71	14.60	16.65	14.25	13.25	15.41
May	14.75	16.00	13.80	14.00	15.33	15.15	16.30	14.25	13.25	15.56
June	14.60	15.50	13.75	14.00	14.18	15.30	15.45	14.25	13.45	14.95
July	15.00	14.75	13.63	14.11	13.76	15.60	15.15	14.21	13.75	14.68
August ...	15.75	14.50	13.75	14.50	13.95	16.30	14.55	13.99	13.94	14.50
September.	16.10	14.50	13.75	15.50	14.00	17.15	14.50	13.75	15.15	14.55
October ..	16.50	14.50	13.75	16.64	14.00	18.25	14.25	13.75	16.53	14.73
November.	16.75	14.50	13.69	17.19	13.71	18.25	14.15	13.27	17.35	14.35
December .	17.00	14.50	13.50	17.61	13.07	18.10	14.25	13.25	17.75	13.76
Average ..	15.80	15.55	13.84	14.89	14.87	16.44	15.61	13.95	14.5[illegible]	15.37

FOUNDRY PIG IRON, NO. 2X, PHILADELPHIA.

Averaged from daily quotations, delivered:

	1908.	1909.	1910.	1911.	1912.	1913.
January	18.25	17.25	19.00	15.50	14.75	18.49
February	18.25	17.06	18.70	15.50	14.75	18.23
March	18.13	16.36	18.00	15.50	14.84	17.81
April	17.63	16.20	17.75	15.50	15.50	17.49
May	16.94	16.00	17.00	15.49	15.16	16.77
June	16.63	16.23	16.65	15.18	15.58	16.26
July	16.50	16.56	16.25	15.00	15.61	15.66
August	16.50	17.17	16.00	15.00	15.84	15.56
September	16.63	18.04	16.00	15.00	16.35	15.97
October	16.75	18.67	15.85	15.00	17.39	15.94
November	17.00	19.00	15.75	14.95	18.19	15.61
December	17.25	19.00	15.50	14.75	18.29	14.98
Average	17.21	17.30	16.87	15.20	16.02	16.56

FOUNDRY PIG IRON—CHICAGO, BIRMINGHAM.

Averaged from daily quotations; f.o.b. points named; ordinary deliveries:

	No. 2, Chicago					No. 2, Birmingham				
	1909.	1910.	1911.	1912.	1913.	1909.	1910.	1911.	1912.	1913.
January	17.25	19.00	15.50	14.50	18.48	13.00	13.50	11.00	9.87	13.72
February	17.08	19.00	15.50	14.50	17.87	12.75	13.00	11.00	10.00	13.46
March	16.75	18.35	15.50	14.50	17.75	11.72	12.25	11.00	10.11	13.04
April	16.54	17.50	15.50	14.50	17.60	11.00	11.60	10.75	10.54	12.60
May	16.31	17.05	15.50	14.96	16.67	11.25	11.30	10.69	10.90	11.74
June	16.50	16.75	15.50	15.00	16.25	11.40	11.25	10.24	11.06	10.89
July	16.75	16.60	15.32	15.10	15.38	11.94	11.40	10.00	11.65	10.50
August	17.19	16.50	15.00	15.78	15.44	12.63	11.00	10.00	12.00	10.85
September	18.69	16.40	15.00	16.58	15.50	14.19	11.00	10.00	12.65	11.20
October	19.00	16.10	14.85	17.50	15.50	15.00	11.00	10.00	13.68	11.48
November	19.00	16.00	14.57	17.78	15.43	14.74	11.00	9.98	14.00	10.80
December	19.00	16.00	14.50	18.50	14.83	14.08	11.00	9.75	14.00	10.50
Average	17.51	17.10	15.19	15.77	16.39	12.81	11.61	10.37	11.71	11.73

BASIC PIG IRON PHILADELPHIA.

Basic pig iron, delivered Philadelphia:

	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	16.50	17.91	25.25	17.10	16.75	18.65	14.40	14.25	18.00
February	16.50	17.97	25.12	17.25	16.56	18.45	14.50	14.25	17.75
March	16.70	17.81	25.37	17.25	15.75	18.30	15.10	14.35	17.50
April	16.75	17.86	24.56	17.25	15.00	17.60	15.20	14.75	17.00
May	16.56	17.59	24.75	16.37	15.12	16.60	14.69	15.20	16.50
June	16.00	17.75	24.37	15.50	15.50	16.15	14.50	15.25	16.50
July	15.44	17.75	23.12	15.10	15.80	15.65	14.44	15.50	15.90
August	15.25	18.02	20.80	15.00	17.06	15.15	14.61	15.80	15.25
September	15.81	19.25	19.09	15.44	18.10	15.00	14.70	16.25	15.25
October	17.19	20.12	18.40	15.80	18.37	15.00	14.50	16.73	15.25
November	17.55	21.65	17.81	16.19	18.81	14.75	14.50	18.00	15.13
December	17.81	23.25	17.37	16.70	18.75	14.75	14.50	18.00	14.75
Average	16.50	18.91	22.17	16.25	16.80	16.34	14.64	15.69	16.23

PIG IRON AT PHILADELPHIA.

Charcoal iron; to 1827, best pig iron, to 1833, average of grades; to 1840, gray iron; to 1849, No. 1 foundry:

1799 .. 36.25	1816 .. 50.25	1833 .. 38.25
1800 .. 35.75	1817 .. 47.00	1834 .. 30.25
1801 .. 32.75	1818 .. 42.25	1835 .. 30.25
1802 .. 30.75	1819 .. 36.50	1836 .. 41.50
1803 .. 29.25	1820 .. 35.00	1837 .. 41.25
1804 .. 29.75	1821 .. 35.00	1838 .. 32.25
1805 .. 30.75	1822 .. 35.00	1839 .. 30.00
1806 .. 35.75	1823 .. 35.25	1840 .. 32.75
1807 .. 38.75	1824 .. 40.00	1841 .. 28.50
1808 .. 40.00	1825 .. 46.75	1842 .. 28.00
1809 .. 40.00	1826 .. 46.50	1843 .. 26.75
1810 .. 38.00	1827 .. 39.25	1844 .. 28.25
1811 .. 44.00	1828 .. 35.00	1845 .. 32.25
1812 .. 47.50	1829 .. 35.00	1846 .. 31.25
1813 .. 47.25	1830 .. 35.00	1847 .. 31.50
1814 .. 46.00	1831 .. 35.00	1848 .. 28.50
1815 .. 53.75	1832 .. 35.00	1849 .. 24.50

No. 1 anthracite foundry iron:

1845 .. 29.25	1862 .. 23.87	1879 .. 21.50
1846 .. 27.87	1863 .. 35.25	1880 .. 28.50
1847 .. 30.25	1864 .. 59.25	1881 .. 25.12
1848 .. 26.50	1865 .. 46.12	1882 .. 25.75
1849 .. 22.75	1866 .. 46.87	1883 .. 22.37
1850 .. 20.87	1867 .. 44.12	1884 .. 19.87
1851 .. 21.37	1868 .. 39.25	1885 .. 18.00
1852 .. 22.62	1869 .. 40.62	1886 .. 18.71
1853 .. 36.12	1870 .. 33.25	1887 .. 20.92
1854 .. 36.87	1871 .. 35.12	1888 .. 18.88
1855 .. 27.75	1872 .. 48.87	1889 .. 17.75
1856 .. 27.12	1873 .. 42.75	1890 .. 18.40
1857 .. 26.37	1874 .. 30.25	1891 .. 17.52
1858 .. 22.25	1875 .. 25.50	1892 .. 15.75
1859 .. 23.37	1876 .. 22.25	1893 .. 14.52
1860 .. 22.75	1877 .. 18.87	1894 .. 12.66
1861 .. 20.25	1878 .. 17.62	1895 .. 13.10

CAST IRON PIPE.

Average prices 6-in. cast iron water pipe 30 lbs. per foot, f.o.b. Eastern tidewater, carload lots, per ton of 2,000 lbs.

	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Jan. ..	29.25	24.50	28.00	29.75	34.25	27.00	24.50	25.75	22.00	22.00	25.00
Feb. .	29.25	24.25	28.50	29.50	34.25	26.75	24.25	25.75	21.50	22.00	24.75
Mar. ..	30.75	24.25	26.75	30.50	34.00	26.25	25.25	25.75	21.00	22.00	23.75
April .	31.00	24.25	27.00	29.75	33.50	26.25	25.00	25.75	21.00	21.50	23.50
May ..	30.75	24.00	27.25	31.00	34.25	26.25	25.25	25.75	21.00	21.50	23.00
June ..	30.75	23.50	27.25	32.50	33.50	25.75	26.00	25.50	21.00	21.50	23.00
July ..	30.75	23.50	27.25	30.25	34.00	25.75	26.25	24.25	21.00	22.00	23.00
Aug. ..	29.50	23.50	27.25	30.50	32.50	25.25	26.00	23.75	21.00	22.25	23.00
Sep. ..	29.00	23.00	27.25	31.00	33.00	25.75	25.75	23.75	21.00	23.00	23.00
Oct. ..	26.00	23.25	28.25	33.00	33.50	25.75	25.50	23.25	21.00	24.50	23.00
Nov. .	24.50	25.00	29.00	33.25	28.50	25.00	27.00	22.00	21.75	24.50	23.00
Dec. .	24.25	27.00	29.25	35.50	28.00	25.50	27.25	22.00	22.00	24.75	22.00
Av'ge.	28.81	24.17	27.75	31.38	32.77	25.94	25.67	24.44	21.27	22.63	23.33

STANDARD ANALYSES.

Steel Making and Malleable Iron.

Specially prepared by Mr. Eliot A. Kebler, Massillon, O.

	Silicon.	Sulphur.	Phosphorus.
Basic (Note A)	Not over 1.00	Not over .05	(Note B)
Malleable (Note C)	*.75—2.00	Not over .05	Not over .20
Bessemer	1.00—2.00	Not over .05	Not over .10
Low phosphorus	1.00—2.00	Not over .40	Not over .04
Washed Metal	.....	*.015—*.030	*.010—.025

* As specified by buyer.

Note A.—Must be cast in chills.

Note B.— Virginia, Southern and some Eastern basic, not over 1.00; Northern, all districts, not over .50; some valley furnaces, not over .20.

Note C.—Standard, guaranteed under .80 in manganese.

All above sold per ton 2,240 lbs., except unbroken sand cast Bessemer and gray forge which are sold per ton 2,268 lbs. in valleys and Pittsburgh district—in other districts per ton of 2,240 lbs.

Standard No. 2 Foundry Iron.

(Guaranteed)	Silicon.	Sulphur.	Phosphorus.	Manganese.
Central West, valleys, Central lake ports, Chicago; standard	1.75—2.25	Not over .05	.40— .60	About .60—.80
ßame districts, extra strong or car wheel.	1.25—1.75	"	.30— .40	.60—.80
Buffalo District (2X)	2.25—2.75	"	.50— .70	.50—.90
Eastern Points (2X)	2.25—2.75	"	.50— .90	.50—.90
ßtandard Alabama	2.25—2.75	"	.30—1.00	.20—.50
ßtandard Tennessee (Note A)	2.25—2.75	"	1.10—1.50	.20—.80

Note A.—This analysis now made by several Northern furnaces.

A difference of .50 in silicon usually made between grades coming from same district; sulphur con-ents increase as grades lower.

Practically all iron except unbroken sand pigs sold per ton 2,240 lbs., f.o.b. furnace.

Grading by fracture is being rapidly superseded by the above.

RODS.

Bessemer steel rods, Pittsburgh, monthly and annual averages.

	1911.	1912.	1913.
January	27.75	24.60	30.00
February	29.00	25.00	30.00
March	29.00	25.00	30.00
April	29.00	25.00	30.00
May	29.00	24.90	30.00
June	28.00	24.75	29.00
July	27.00	25.00	28.50
August	27.00	25.25	28.00
September	27.00	26.00	27.37
October	26.00	28.37	26.50
November	25.00	29.90	26.00
December	24.50	30.00	25.25
Year	27.35	26.15	28.39

1887	44.25	1900	29.75
1888	41.50	1901	32.50
1889	32.00	1902	36.00
1890	42.00	1903	34.50
1891	34.50	1904	28.75
1892	32.00	1905	32.00
1893	28.25	1906	34.50
1894	23.13	1907	36.50
1895	24.75	1908	34.00
1896	24.25	1909	31.45
1897	21.00	1910	30.25
1898	21.50	1911	27.35
1899	32.50	1912	26.15

1913 ..... 28.39

BESSEMER STEEL BILLETS.

(Average quotations, Pittsburgh).

	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.
Jan.	25.60	25.00	21.56	16.12	14.90	16.80	15.42	14.93	16.62	34.50	19.75	27.50	29.60
Feb.	26.00	24.36	21.62	15.75	14.95	17.38	15.25	15.06	18.00	34.87	20.31	29.37	29.87
Mar.	26.25	23.00	22.60	15.55	14.84	17.09	15.44	15.25	24.30	33.00	22.88	31.25	30.62
Apr.	25.35	22.81	22.44	15.69	15.44	19.53	14.60	15.06	25.37	32.00	24.00	31.50	30.25
May	25.50	22.41	21.69	18.00	16.30	19.50	13.82	14.85	26.75	28.90	24.00	32.20	30.37
June	25.25	22.97	21.70	18.12	18.63	19.12	14.06	14.65	30.10	27.25	24.38	32.37	28.87
July	25.50	23.50	21.06	18.00	20.75	18.85	14.00	14.50	33.12	21.00	24.00	31.75	27.60
Aug.	25.31	23.81	20.45	17.15	21.75	18.75	14.00	15.85	35.40	18.20	24.20	31.06	27.00
Sept.	25.00	23.65	19.31	17.19	24.00	19.75	15.60	16.00	38.37	16.93	24.88	29.50	27.00
Oct.	24.90	23.53	18.06	16.00	21.90	19.75	16.44	15.56	38.75	16.50	26.70	29.70	27.00
Nov.	24.16	24.94	17.37	15.57	19.13	20.00	15.57	15.06	36.50	18.95	27.00	28.50	24.00
Dec.	24.20	22.40	16.69	15.12	16.97	17.50	15.00	15.80	33.75	19.75	27.50	29.12	23.00
Av.	25.08	23.53	20.38	16.52	18.30	18.67	14.93	15.21	29.75	25.15	24.13	30.32	27.93

OPEN HEARTH

AND

BESSEMER

STEEL

FOR EVERY USE

CARNEGIE
STEEL COMPANY

STEEL BILLETS, PITTSBURGH.

	Bessemer										Open-hearth.	
	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1912.	1913.
Jan.	23.00	22.75	26.25	29.40	28.00	25.00	27.00	23.00	19.75	28.40	19.75	28.50
Feb.	23.00	23.50	26.50	29.50	28.00	25.00	27.00	23.00	19.50	29.00	19.50	29.00
Mar.	23.00	24.00	26.70	29.00	28.00	23.00	27.00	23.00	19.75	29.00	19.40	29.00
April ...	23.00	24.00	27.00	30.12	28.00	23.00	26.75	23.00	20.25	27.50	20.25	27.50
May	23.00	23.50	26.40	30.30	28.00	23.00	25.85	22.92	21.00	27.00	21.00	27.00
June	23.00	22.00	26.63	29.62	25.92	23.00	25.00	21.00	21.25	26.50	21.25	26.50
July	23.00	22.00	27.25	30.00	25.00	23.50	25.00	21.00	21.50	26.50	21.75	26.50
Aug. ...	23.00	24.00	27.80	29.25	25.00	24.16	24.60	21.00	22.15	25.75	22.75	25.75
Sept. ...	20.00	25.00	28.00	29.37	25.00	25.00	24.25	20.60	23.75	24.50	24.75	24.00
Oct.	19.50	25.62	28.00	28.20	25.00	26.00	23.65	20.00	25.75	22.50	26.75	22.50
Nov. ...	20.25	26.00	28.88	28.00	25.00	27.15	23.25	19.00	26.75	20.50	27.75	20.50
Dec.	21.20	26.00	29.50	28.00	25.00	27.20	23.00	19.25	27.00	20.00	28.00	20.00
Average.	22.08	24.03	27.41	29.23	26.33	24.58	25.20	21.40	22.37	25.59	22.74	25.56

GLASGOW IRON CO.

Manufacturers of

GENUINE Wrought Iron Plates

Made From Muck Bars
by the Puddling Process

Sheared and Universal Open Hearth Steel Plates

Flanged and Pressed Steel Work
of all descriptions.

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Pottstown, Pa.
Office:
603 Harrison Building
PHILADELPHIA, PA.

BARS, PLATES, SHAPES.

(Historic official price changes).

Merchant steel bars, base, Pittsburg:

	Bessemer	Open-hearth.
March 1, 1902	1.60	1.70
November 6, 1903	1.30	1.40
March 14, 1904	1.35	1.40
September 19, 1904	1.30	1.35
December 20, 1904	1.40	1.40
February 28, 1905	1.50	1.50
November 15, 1906	1.60	1.60
June 1, 1908	1.40	1.40
February 19, 1909	Open market.	

Steel tank plates, Pittsburg:

April 4, 1901	1.60
September 6, 1904	1.40
December 20, 1904	1.50
February 16, 1905	1.60
November 26, 1906	1.70
June 9, 1908	1.60
February 19, 1909	Open market.

Beams and channels, 3-inch to 15-inch, Pittsburg:

April 1, 1901	1.60
September 6, 1904	1.40
December 19, 1904	1.50
February 16, 1905	1.60
August 31, 1905	1.70
June 9, 1908	1.60
February 19, 1909	Open market.

OPEN HEARTH and BESSEMER

Steel Products

Ingots, Billets, Blooms and Slabs.
Standard Heavy and Light Rails.
Contact Rails.
Angle and Splice Bars.
Abbott Rail Joint Plates
and Tie Plates.
Standard Structural Shapes.
Sheared and Universal Mill Plates.
Sheet Bars.
Merchant Bars in Rounds, Squares, Flats, Ovals, Hexagons.
Concrete Reinforcing Bars.
Plow Beam Billets and Agricultural Shapes.
LACKAWANNA STEEL SHEET PILING:
Arched-Web, Straight Web,
Center-Flange and Protected Types.

LACKAWANNA STEEL COMPANY

Gen. Sales Office & Works, Lackawanna, N. Y.

New York	St. Louis	Buffalo
Philadelphia	Boston	Cleveland
Cincinnati	Chicago	Detroit
Atlanta	San Francisco	

STRUCTURAL SHAPES.

Beams and channels, 3-inch to 15-inch, Pittsburgh; averaged from daily quotations:

	1909	1910.	1911.	1912.	1913.
January ..	1.60	1.55	1.40	1.15	1.50
February .	1.40	1.55	1.40	1.11	1.45
March ...	1.30	1.55	1.40	1.12	1.45
April	1.25	1.51	1.40	1.20	1.45
May	1.22	1.50	1.40	1.25	1.45
June	1.28	1.45	1.35	1.26	1.45
July	1.34	1.42	1.35	1.30	1.45
August ...	1.40	1.40	1.35	1.37	1.45
September	1.45	1.40	1.33	1.40	1.40
October ..	1.50	1.40	1.23	1.47	1.39
November	1.53	1.40	1.14	1.50	1.34
December .	1.55	1.40	1.13	1.50	1.24
Year ...	1.40	1.46	1.32	1.30	1.42

Quarterly averages of quotations:

	1st.	2nd.	3rd.	4th.	Year.
1894...	1.21	1.20	1.27	1.25	1.23
1895...	1.21	1.25	1.56	1.58	1.40
1896...	1.44	1.49	1.55	1.50	1.49
1897...	1.55	1.33	.98	1.09	1.24
1898...	1.15	1.15	1.19	1.20	1.17
1899...	1.35	1.60	2.12	2.25	1.83
1900...	2.25	2.21	1.68	1.50	1.91
1901...	1.51	1.60	1.60	1.60	1.58
1902...	1.60	1.60	1.60	1.60	1.60
1903...	1.60	1.60	1.60	1.60	1.60
1904...	1.60	1.60	1.55	1.41	1.54
1905...	1.55	1.60	1.63	1.70	1.62
1906...	1.70	1.70	1.70	1.70	1.70
1907...	1.70	1.70	1.70	1.70	1.70
1908...	1.70	1.68	1.60	1.60	1.64
1909...	1.43	1.25	1.40	1.53	1.40
1910...	1.55	1.49	1.41	1.40	1.46
1911...	1.40	1.38	1.34	1.17	1.32
1912...	1.13	1.24	1.36	1.49	1.30
1913...	1.47	1.45	1.43	1.32	1.42

NON-CORROSIVE
RUST RESISTING

ALLEGHENY IRON

Sheets
Plates
Boiler Tubes

Steel SHEETS
PLATES
BOILER TUBES

Charcoal Iron Boiler Tubes,
Special Heavy Stampings

Open Hearth Steel Castings

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STEEL PLATES.

(Tank plate, Pittsburgh).

Averaged from daily quotations:

	1909.	1910.	1911.	1912.	1913.
January ..	1.60	1.55	1.40	1.15	1.50
February .	1.50	1.55	1.40	1.11	1.45
March	1.30	1.55	1.40	1.11	1.45
April	1.28	1.54	1.40	1.20	1.45
May	1.25	1.50	1.40	1.25	1.45
June	1.25	1.42	1.35	1.26	1.45
July	1.33	1.40	1.34	1.30	1.45
August ...	1.40	1.40	1.30	1.37	1.44
September.	1.45	1.38	1.28	1.40	1.40
October ..	1.50	1.38	1.19	1.47	1.36
November	1.54	1.37	1.11	*1.50	1.29
December.	1.55	1.40	1.13	*1.50	1.20
Year ...	1.41	1.45	1.31	1.30	1.41

Averaged quarterly from open quotations:

	1st.	2nd.	3rd.	4th.	Year.
1892	1.92	1.85	1.80	1.74	1.83
1893	1.69	1.58	1.54	1.41	1.56
1894	1.23	1.18	1.21	1.17	1.20
1895	1.12	1.21	1.73	1.63	1.42
1896	1.35	1.32	1.19	1.12	1.24
1897	1.10	1.06	1.00	1.04	1.05
1898	1.00	1.07	1.11	1.13	1.08
1899	1.49	2.16	2.62	2.54	2.20
1900	2.17	1.65	1.13	1.27	1.55
1901	1.42	1.56	1.60	1.60	1.55
1902*	1.60	1.60	1.60	1.60	1.60
1903	1.60	1.60	1.60	1.60	1.60
1904	1.60	1.60	1.55	1.42	1.54
1905	1.55	1.60	1.60	1.60	1.59
1906	1.60	1.60	1.60	1.64	1.61
1907	1.70	1.70	1.70	1.70	1.70
1908	1.70	1.67	1.60	1.60	1.64
1909	1.47	1.26	1.39	1.53	1.41
1910	1.55	1.49	1.39	1.38	1.45
1911	1.40	1.38	1.31	1.14	1.31
1912	1.12	1.24	1.36	1.49*	1.30
1913	1.47	1.45	1.43	1.28	1.41

* Premiums for prompt delivery.

REPUBLIC IRON
--- AND ---
STEEL CO.

BESSEMER AND OPEN HEARTH STEEL

Billets, Blooms, Sheet Bars, Merchant Bars, Shapes and Skelp

WROUGHT PIPE

Line Pipe, Drive Pipe, Tubing and Casing
Standard
Extra Strong and Double Extra Strong
Black and Galvanized

Nuts, Bolts, Spikes, Washers, Turnbuckles, Twisted Squares, Cold Drawn Shafting

MERCHANT BAR IRON

"Pioneer" Southern Pig Iron

GENERAL OFFICES

Republic Building, Youngstown, O.

SALES OFFICES

Birmingham	Boston	Buffalo
Cincinnati	Chicago	Cleveland
New York	Pittsburg	St. Louis
San Francisco	Detroit	Dallas
	Philadelphia	

STEEL BARS.

(Base price, Pittsburgh).
Averaged from daily quotations:

	1909.	1910.	1911.	1912.	1913.
January ...	1.40	1.48	1.40	1.15	1.40
February ..	1.33	1.45	1.40	1.11	1.40
March	1.20	1.45	1.40	1.10	1.40
April	1.13	1.45	1.40	1.15	1.40
May	1.19	1.45	1.37	1.20	1.40
June	1.20	1.43	1.25	1.21	1.40
July	1.25	1.45	1.24	1.25	1.40
August ...	1.33	1.40	1.20	1.30	1.40
September .	1.37	1.40	1.18	1.31	1.40
October ..	1.40	1.40	1.13	1.39	1.39
November .	1.45	1.40	1.07	*1.40	1.30
December .	1.45	1.40	1.12	*1.40	1.22
Year	1.31	1.43	1.26	1.25	1.38

Averaged quarterly from open quotations:

	1st.	2nd.	3rd.	4th.	Year.
1897	1.05	.98	.92	.99	.99
1898	.95	.92	.95	.98	.95
1899	1.12	1.85	2.40	2.37	1.95
1900	2.25	1.87	1.12	1.18	1.61
1901	1.34	1.45	1.45	1.50	1.44
1902*	1.53	1.60	1.60	1.60	1.58
1903	1.60	1.60	1.60	1.45	1.56
1904	1.31	1.35	1.34	1.31	1.33
1905	1.43	1.50	1.50	1.50	1.48
1906	1.50	1.50	1.50	1.55	1.51
1907	1.60	1.60	1.60	1.60	1.60
1908	1.60	1.53	1.40	1.40	1.48
1909	1.31	1.17	1.32	1.43	1.31
1910	1.46	1.44	1.42	1.40	1.43
1911	1.40	1.34	1.21	1.11	1.26
1912	1.12	1.19	1.29	1.40*	1.25
1913	1.40	1.40	1.40	1.30	1.38

* Premiums for prompt delivery.

BAR IRON.

Best refined bar iron from store, Philadelphia; annual averages; taken from sales books prior to 1887; from quotations since. Compiled by American Iron and Steel Association through 1912; by Bureau of Statistics of American Iron and Steel Institute since.

1844.....	3.82	1879.....	2.31
1845.....	4.19	1880.....	2.70
1846.....	4.10	1881.....	2.59
1847.....	3.84	1882.....	2.74
1848.....	3.55	1883.....	2.25
1849.....	3.01	1884.....	1.97
1850.....	2.66	1885.....	1.80
1851.....	2.44	1886.....	1.92
1852.....	2.62	1887.....	2.20
1853.....	3.73	1888.....	2.01
1854.....	4.09	1889.....	1.94
1855.....	3.33	1890.....	2.05
1856.....	3.30	1891.....	1.90
1857.....	3.17	1892.....	1.87
1858.....	2.78	1893.....	1.70
1859.....	2.72	1894.....	1.34
1860.....	2.62	1895.....	1.44
1861.....	2.72	1896.....	1.40
1862.....	3.14	1897.....	1.31
1863.....	4.06	1898.....	1.28
1864.....	6.50	1899.....	2.07
1865.....	4.75	1900.....	1.96
1866.....	4.38	1901.....	1.84
1867.....	3.89	1902.....	2.13
1868.....	3.82	1903.....	2.00
1869.....	3.65	1904.....	1.72
1870.....	3.52	1905.....	1.92
1871.....	3.51	1906.....	1.98
1872.....	4.36	1907.....	2.11
1873.....	3.87	1908.....	1.70
1874.....	3.03	1909.....	1.76
1875.....	2.72	1910.....	1.85
1876.....	2.32	1911.....	1.64
1877.....	2.03	1912.....	1.75
1878.....	1.97	1913.....	1.92

COMMON IRON BARS.

Annual average of quotations, base.

	Pittsburgh.		Pittsburgh.		Pittsburgh.		Pittsburgh.	Chicago.
1845.....	4.3	1862.....	3.5	1879.....	2.5	1896.....	1.11	1.30
1846.....	4.1	1863.....	4.5	1880.....	2.75	1897.....	1.00	1.11
1847.....	3.8	1864.....	*6.7	1881.....	2.32	1898.....	.95	1.05
1848.....	3.5	1865.....	5.3	1882.....	2.41	1899.....	1.71	1.80
1849.....	3.0	1866.....	5.0	1883.....	1.99	1900.....	1.64	1.75
1850.....	2.7	1867.....	4.5	1884.....	1.77	1901.....	1.46	1.58
1851.....	2.4	1868.....	3.7	1885.....	1.65	1902.....	1.74	1.71
1852.....	2.6	1869.....	3.5	1886.....	1.72	1903.....	1.64	1.65
1853.....	4.0	1870.....	3.3	1887.....	1.96	1904.....	1.32	1.41
1854.....	3.5	1871.....	3.4	1888.....	1.80	1905.....	1.65	1.65
1855.....	3.0	1872.....	4.6	1889.....	1.77	1906.....	1.65	1.71
1856.....	3.0	1873.....	3.6	1890.....	1.85	1907.....	1.73	1.78
1857.....	4.3	1874.....	2.8	1891.....	1.70	1908.....	1.47	1.56
1858.....	4.3	1875.....	2.5	1892.....	1.61	1909.....	1.49	1.42
1859.....	3.7	1876.....	2.5	1893.....	1.55	1910.....	1.53	1.44
1860.....	3.6	1877.....	2.0	1894.....	1.13	1911.....	1.30	1.21
1861.....	2.3	1878.....	2.0	1895.....	1.16	1912.....	1.38	1.32
						1913.....	1.59	1.45

* Record high, December, 1864, 7.50; gold in 1864 262

B. Nicoll & Co.

Pig Iron

Semi-Finished Steel

Iron Ore

Coal Coke

OFFICES

New York	Chicago
Pittsburgh	Philadelphia
Baltimore	Cumberland, Md.
Reading, Pa.	Galveston, Texas

IRON BARS.

Averaged from daily quotations.

	Philadelphia					Pittsburgh					Chicago				
	1909.	1910.	1911.	1912.	1913.	1909.	1910.	1911.	1912.	1913.	1909.	1910.	1911.	1912.	1913.
Jan.	1.50	1.63	1.35	1.27	1.68	1.50	1.70	1.40	1.25	1.65	1.50	1.55	1.30	1.15	1.60
Feb.	1.48	1.55	1.34	1.25	1.67	1.45	1.70	1.40	1.25	1.65	1.45	1.55	1.28	1.15	1.59
Mar.	1.42	1.55	1.35	1.23	1.65	1.39	1.65	1.40	1.25	1.65	1.35	1.55	1.25	1.15	1.58
Apr.	1.39	1.51	1.34	1.27	1.68	1.33	1.60	1.35	1.25	1.65	1.28	1.50	1.23	1.15	1.58
May	1.39	1.50	1.28	1.30	1.68	1.30	1.55	1.30	1.25	1.65	1.27	1.48	1.20	1.22	1.55
Jun.	1.40	1.48	1.27	1.30	1.61	1.39	1.53	1.25	1.31	1.65	1.32	1.45	1.20	1.26	1.50
July	1.45	1.42	1.27	1.32	1.55	1.45	1.50	1.25	1.35	1.65	1.35	1.40	1.20	1.31	1.50
Aug.	1.46	1.39	1.27	1.34	1.42	1.48	1.45	1.25	1.38	1.62	1.39	1.38	1.20	1.38	1.44
Sep.	1.52	1.35	1.25	1.40	1.33	1.53	1.45	1.25	1.46	1.59	1.44	1.36	1.20	1.44	1.37
Oct.	1.58	1.35	1.22	1.55	1.32	1.64	1.45	1.25	1.55	1.54	1.54	1.35	1.19	1.50	1.27
Nov.	1.63	1.35	1.20	1.67	1.30	1.68	1.40	1.25	1.62	1.45	1.57	1.35	1.16	1.55	1.15
Dec.	1.65	1.35	1.23	1.68	1.25	1.70	1.40	1.25	1.65	1.37	1.57	1.32	1.15	1.55	1.12
Av.	1.49	1.45	1.28	1.38	1.51	1.49	1.53	1.30	1.38	1.59	1.42	1.44	1.21	1.32	1.45

The Vulcan Detinning Co.

SEWAREN, N. J.

Buyers of

TIN PLATE SCRAP

also Terne Plate Scrap

Factories

SEWAREN, N. J.

STREATOR, ILL.

BAR IRON.

Average realized prices on base sizes common bar iron shipped during months named, f. o. b. valley and Cleveland mills to January 1, 1911; certain western mills included thereafter; sworn returns of manufacturers used in Amalgamated Association wage adjustments; where second decimal place is omitted the figure represents the tenth next below actual price. * Represents base of scale; realized average may have been lower.

	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.
Jan.-Feb.		1.05	1.1	1.8	1.3	1.5	1.7	1.3	1.4
Mar.-April		1.05	1.2	2.0	1.3	1.5	1.7	1.3	1.5
May-June	*1.	*1.	*1.4	1.75	1.4	1.6	1.7	1.3	1.4
July-Aug.	*1.	1.03	1.6	1.4	1.4	1.6	1.6	*1.2	1.4
Sept.-Oct.	1.05	1.07	1.65	*1.2	1.4	1.6	1.5	*1.2	1.4
Nov.-Dec.	1.05	1.06	1.8	1.3	1.5	1.7	1.3	1.3	1.572

	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Jan.-Feb.	1.619	1.599	1.493	1.3640	1.4849	1.3108	1.187	1.4831
Mar.-April	1.626	1.656	1.450	1.3220	1.4825	1.2886	1.195	1.5430
May-June	1.599	1.654	1.354	1.2992	1.46375	1.2647	1.2183	1.5272
July-Aug.	1.551	1.653	1.330	1.3550	1.4655	1.246	1.2518	1.5029
Sept.-Oct.	1.554	1.626	1.346	1.4000	1.3983	1.242	1.3351	1.3931
Nov.-Dec.	1.573	1.575	1.343	1.4195	1.359	1.207	1.4226	1.2030
Year's average.	1.587	1.627	1.386	1.3600	1.4423	1.2598	1.2683	1.4421

West Leechburg Steel Co.

Cold Rolled Strip Steel

For Difficult Drawing
and Forming

Fine Steel Hoops and Bands

Pickled and Annealed for
Special Purposes

SPECIALTY:

Hot and Cold Rolled Strip Steel made to required analyses for exacting purposes, and rolled from HAMMERED Steel Billets to uniform gauge, finish and temper.

GENERAL OFFICES:

Farmers Bank Building

PITTSBURGH, PA.

HOOPS, BANDS AND COTTON TIES.

Hoops, base, monthly averages, Pittsburgh.

	1910.	1911.	1912.	1913.
January	1.58	1.50	1.28	1.55
February	1.60	1.50	1.25	1.60
March	1.60	1.50	1.25	1.60
April	1.58	1.48	1.25	1.60
May	1.55	1.45	1.25	1.60
June	1.55	1.42	1.27	1.60
July	1.55	1.40	1.36	1.55
August	1.52	1.40	1.40	1.55
September ...	1.50	1.37	1.50	1.60
October	1.50	1.31	1.50	1.55
November ...	1.50	1.25	1.50	1.45
December	1.50	1.26	1.50	1.40
Year	1.54	1.40	1.36	1.55

Hoops and bands, yearly averages, Pittsburgh:

	Hoops.	Bands.
1902	1.90	1.60
1903	1.84	1.53
1904	1.48	1.31
1905	1.65	1.48
1906	1.88	1.50
1907	2.00	1.60
1908	1.90	1.50
1909	1.56	1.30
1910	1.54	1.42
1911	1.40	1.28
1912	1.36	1.25
1913	1.55	1.38

Cotton ties, season basis, cents per bundle, Pittsburgh:

1901	72	1908	85
1902	80	1909	70
1903	85	1910	75
1904	75	1911	75
1905	85	1912	70
1906	85	1913	80
1907	95		

La Belle Iron Works

Established in 1852.

General Offices:

Steubenville, Ohio

Products

BLACK AND GALVANIZED
STEAM, GAS AND WATER PIPE
OIL AND GAS LINE PIPE
CASING
TUBING AND DRIVE PIPE
OPEN HEARTH SHEETS—
BLUE ANNEALED, BLACK AND
GALVANIZED
FORMED ROOFING—
PAINTED AND GALVANIZED
CUT NAILS TACK PLATE
SHOVEL PLATE SKELP
GROOVE-ROLLED PLATES
UNIVERSAL PLATES
SHEARED PLATES
SPECIAL PLATES AND SHEETS
FOR STAMPING, AUTOMO-
BILE AND AGRICUL-
TURAL PURPOSES
SHEET BARS SLABS
BILLETS PIG IRON

Steubenville Ohio **Works:** **Wheeling West Virginia**

MERCHANT STEEL PIPE.

The list adopted January 1, 1913; weights of full standard weight per foot, plain ends; list prices per foot, full standard weight, extra strong and double extra strong.

Nominal Inside Diam.	Actual Outside Diam.	Weight per foot, Pounds.	LIST PRICES PER FOOT. Standard Weight.	Extra Strong.	XX Strong.
⅛..	.405	.244	$.05½	$.12	....
¼..	.540	.424	.06	.07½	....
⅜..	.675	.567	.06	.07½	....
½..	.840	.850	.08½	.11	$.32
¾..	1.050	1.130	.11½	.15	.35
1....	1.315	1.678	.17	.22	.37
1¼..	1.660	2.272	.23	.30	.52½
1½..	1.900	2.717	.27½	.36½	.65
2....	2.375	3.652	.37	.50½	.91
2½..	2.875	5.793	.58½	.77	1.37
3....	3.500	7.575	.76½	1.03	1.86
3½..	4.000	9.109	.92	1.25	2.30
4....	4.500	10.790	1.09	1.50	2.76
4½..	5.000	12.538	1.27	1.80	3.26
5....	5.563	14.617	1.48	2.08	3.86
6....	6.625	18.974	1.92	2.86	5.32
7....	7.625	23.544	2.38	3.81	6.35
8....	8.625	24.696	2.50	4.34	7.25
8....	8.625	28.554	2.88	....	....
9....	9.625	33.907	3.45	4.90	....
10....	10.750	31.201	3.20	5.48	....
10....	10.750	34.240	3.50	....	....
10....	10.750	40.483	4.12	....	....
11....	11.750	45.557	4.63	6.10	....
12....	12.750	43.773	4.50	6.55	....
12....	12.750	49.562	5.07	....	....
13....	14.000	54.568	5.60	....	....
14....	15.000	58.573	6.10	....	....
15....	16.000	62.579	6.50	....	....

"NATIONAL" PIPE

IS READILY IDENTIFIED

¶ To readily identify "NATIONAL" material and as protection to manufacturer and consumer alike, the practice of National Tube Company is to roll in raised letters of good size on each few feet of every length of welded pipe the name "NATIONAL" (except on the smaller butt-weld sizes, on which this is not mechanically feasible; on these smaller butt-weld sizes the name "NATIONAL" appears on the metal tag attached to each bundle of pipe.)

MARKING

Name Rolled in Raised Letters on National Tube Company Pipe.

¶ When writing specifications or ordering tubular goods, always specify "NATIONAL" pipe and identify as indicated.

¶ In addition, all sizes of "NATIONAL" welded pipe below four or five inches are subjected to a roll-knobbling process known as Spellerizing to lessen the tendency to corrosion, especially in the form of pitting. This Spellerizing process is peculiar to "NATIONAL" pipe, to which process National Tube Company has exclusive rights.

NATIONAL TUBE CO. Gen'l Sales Offices Frick Building

PITTSBURGH, PA.

MERCHANT STEEL PIPE.

Full standard weight steel pipe, Pittsburgh basing discounts, the lowest discount on any size (most frequently ¾ to 6-inch) on "jobbers' carloads"; where a fresh date appears with no change indicated, discounts on other sizes or descriptions carried on the card were changed. Dates of cards and jobbers' card discounts indicated.

Feb. 21, 1900	59	Feb. 1, 1905	76
May 1, 1900	67	Mar. 1, 1905	75½
June 1, 1900	67	Apr. 20, 1905	75
July 1, 1900	70	Oct. 2, 1905	79
Aug. 1, 1900	72	Nov. 1, 1905	79
Sep. 1, 1900	70	Jan. 1, 1906	79
Oct. 1, 1900	70	Oct. 12, 1906	77
Jan. 1, 1901	70	Dec. 4, 1906	76
Mar. 20, 1901	70	Dec. 20, 1906	75
Aug. 1, 1901	70	Jan 24, 1907	74
Oct. 1, 1901	70	Feb. 4, 1907	74
Mar. 1, 1902	69	May 14, 1907	72
Mar. 15, 1902	67	June 10, 1908	74
Apr. 12, 1902	67	Feb. 19, 1909	79
Apr. 17, 1902	67	Sep. 1, 1909	79
May 22, 1902	67	Oct. 1, 1909	78
July 1, 1902	67	Jan. 1, 1910	78
Nov. 12, 1902	75	Oct. 1, 1910	80
Mar. 16, 1903	75	Oct. 2, 1911	81
Apr. 1 1903	75	Dec. 1, 1911	82
June 18, 1903	75	Dec. 15, 1911	82
Aug. 1, 1903	75	June 1, 1912	81
Dec. 31, 1903	77	July 1, 1912	81
Feb. 1, 1904	76	July 24, 1912	80
Mar. 1, 1904	75	Sep. 10, 1912	79
June 1, 1904	76	Jan. 1, 1913	80
July 1, 1904	78½	Apr. 12, 1913	79½
Sep. 3, 1904	79	May 27, 1913	79
Oct. 19, 1904	78	Aug. 8, 1913	80
Nov. 1, 1904	77	Oct. 27, 1913	80
Jan. 2, 1905	76½		

November 12, 1902, merchant weight pipe became one point lower price than full weight, a smaller concession having been previously given. January 1, 1913, the manufacture of merchant weight pipe practically ceased. March 16, 1903, cards began to show merchant weight only, with notation that card weight carried one point less discount. The January 1, 1913, card naturally showed full standard (card) weight.

Pittsburgh Steel Co.

PITTSBURGH. PA.

Manufacturers of

"PITTSBURGH PERFECT"

Brands of

Pig Iron
Blooms
Billets
Wire Rods
Bright Wire
Decimal Wire
Annealed Wire
Galvanized Wire
Telephone and Telegraph Wire
Liquor Finished Wire
Barbed Wire (on Regular, Pony or 80)
Rod Spools
Galvanized Twisted Cable Fence Wire
Galvanized Hard Spring Coil Wire
Wire Fence Staples—Single Loop Hay Bale Ties
Poultry Netting Staples
Bright and Galvanized Standard
Steel Wire Nails (Blued and Cement Coated Nails)
Large Head Roofing Nails
Steel Hoops Steel Bands Cotton Ties
and
"PITTSBURGH PERFECT"
Electrically Welded
WIRE FENCING

We make all of the above material from Open Hearth Steel

PLAIN WIRE, WIRE NAILS AND BARB WIRE. (Pittsburgh).

	Plain Wire.		Wire Nails.		Painted Barb Wire.		Galv. Barb Wire.	
	High.	Low.	High.	Low.	High.	Low.	High.	Low.
1897 ...	1.20	1.10	1.50	1.25	1.50	1.30	1.80	1.60
1898 ...	1.25	1.10	1.50	1.25	1.50	1.35	1.80	1.65
1899 ...	2.80	1.20	2.95	1.35	3.40	1.45	3.55	1.80
1900 ...	3.05	2.15	3.20	2.20	3.65	2.50	3.80	2.80
1901 ...	2.25	1.85	2.30	1.90	2.60	2.50	2.90	2.80
1902 ...	2.00	1.75	2.05	1.85	2.60	2.15	2.90	2.45
1903 ...	1.90	1.75	2.00	1.85	2.30	2.15	2.60	2.45
1904 ...	1.85	1.45	1.90	1.60	2.25	1.75	2.55	2.05
1905 ...	1.65	1.60	1.80	1.70	1.95	1.90	2.25	2.20
1906 ...	1.85	1.65	2.00	1.75	2.15	1.95	2.45	2.25
1907 ...	1.90	1.85	2.05	2.00	2.20	2.15	2.50	2.45
1908 ...	1.90	1.80	2.05	1.95	2.20	2.10	2.50	2.40
1909 ...	1.80	1.40	1.95	1.60	2.10	1.60	2.40	1.90
1910 ...	1.65	1.50	1.85	1.70	1.85	1.70	2.15	2.00
1911 ...	1.60	1.30	1.80	1.50	1.80	1.50	2.10	1.80
1912 ...	1.55	1.35	1.75	1.55	1.75	1.55	2.15	1.85
1913 ...	1.60	1.35	1.80	1.55	1.80	1.55	2.20	1.95

Note—Oct. 12, 1912, differential for galvanizing smooth and barb wire changed from 30c to 40c per 100 lbs.

The Youngstown Iron and Steel Company

John O. Pew, Pres.–Gen'l Mgr.
Henry W. Heedy, 1st Vice Pres.
C. A. Cochran, 2d Vice Pres.–Sec.
Mason Evans, Treasurer

¶ Red steel plates, blue annealed steel sheets, black steel sheets, galvanized steel sheets, corrugated steel sheets, expanded metal for concrete reinforcement, metal lath, both expanded, and sheet for plastering purposes, galvanized metal corner bead, pressed steel specialties.

Youngstown, Ohio

WIRE NAIL CARDS.

	Apr. 13, 1886.*	Apr. 11, 1892.	July 19, 1895	Dec. 1, 1896.
60	Base	Base	.50	Base
50	Base	.10	.50	Base
30-40	Base	.25	.50	Base
20	Base	.35	.50	Base
12-16	Base	.45	.50	.05
10	Base	.50	.50	.05
8-9	.35	.60	.60	.10
6-7	.75	.75	.75	.20
4-5	1.10	.90	.90	.30
3	2.25	1.20	1.20	.45
2	4.00	1.60	1.60	.70

* First wire nail card; base price, $4.25.

NAIL PRODUCTION.

(Kegs, 100 pounds.)

	Cut nails.	Wire nails.	Total.
1896.....	1,615,870	4,719,860	6,335,730
1897.....	2,106,799	8,997,245	11,104,044
1898.....	1,572,221	7,418,475	8,990,696
1899.....	1,904,340	7,618,130	9,522,470
1900.....	1,573,494	7,233,979	8,807,473
1901.....	1,542,240	9,803,822	11,346,062
1902.....	1,633,762	10,982,246	12,616,008
1903.....	1,435,893	9,631,661	11,067,554
1904.....	1,283,362	11,926,661	13,210,023
1905.....	1,357,549	10,854,892	12,212,441
1906.....	1,189,239	11,486,647	12,675,886
1907.....	1,109,138	11,731,044	12,840,182
1908.....	956,182	10,662,972	11,619,154
1909.....	1,207,597	13,916,053	15,123,650
1910.....	1,005,233	12,704,902	13,710,135
1911.....	967,636	13,437,778	14,405,414
1912.....	978,415	14,659,700	15,638,115

Maximum production cut nails,
1886 ..... 8,160,973 kegs.
Maximum production wire nails,
1912 ..... 14,659,700 kegs.

The U. S. Government

Specifies

Corrosion Resisting

Sheets and Products

Because

ACTUAL SERVICE TESTS

Have proven its

EXTREME DURABILITY

The "Text Book on Corrosion" Contains the Evidence.

Get a copy from

The

Stark Rolling Mill Co.

Canton, Ohio

SOLE PRODUCERS

SHAFTING.

Cold rolled shafting, discount off list, carloads delivered in base t.rritory.

	1912.	1913.
January	67	58½
February	68	58
March	67	58
April	67	58
May	67	59
June	65	60
July	65	61
August	64	62
September	62	62
October	60	62
November	60	63
December	60	64
Average	64½	60½

RIVETS.

Pittsburgh, averaged from daily quotations.

	Button head structural.		Cone head boiler.	
	1912.	1913.	1912.	1913.
January	1.45	2.20	1.55	2.30
February	1.40	2.20	1.50	2.30
March	1.40	2.10	1.50	2.20
April	1.45	2.10	1.55	2.20
May	1.50	2.10	1.60	2.20
June	1.55	2.00	1.65	2.10
July	1.60	2.00	1.70	2.10
August	1.74	1.90	1.84	2.00
September	1.90	1.90	2.00	2.00
October	1.97	1.85	2.07	1.95
November	2.06	1.78	2.16	1.88
December	2.17	1.72	2.27	1.82
Average	1.68	1.99	1.78	2.09

STOKER FIRED FURNACES vs. Powdered Coal and Producer Gas

By George J. Hagan, Manager of Geo. J. Hagan Co., Pittsburgh.

Hand firing of coal is antedated and recognized as the most expensive way. Until lately little progress has been made in reducing fuel costs and securing better heat treatment of steel in the furnace.

Powdered coal is now used in some plants, but because of high cost, 60c per ton for preparing and handling, and upkeep, the process will not pay a proper return on the heavy investment. (see Proceedings, Engineers' Society of W. Pa., Vol. 29, No. 7, Oct., 1913)

Producer gas with regenerative furnaces is excellent for high temperatures, but involves high first cost and considerable loss in heat. **Proper heat treatment is impossible** on account of rapid change in temperature when reversing.

There must be a steady flow of gases at uniform temperature, and with common slack coal and stokers the writer has secured most perfect results, but the proper stoker must be used—an Underfeed, with air distributed evenly over the entire grate area, not simply through the tuyeres. The air must be under control and must be fed according to the amount of coal. With furnace of proper design first cost, fuel cost, maintenance and operating costs are far below the showing of any other fuel feeding device now before the public.

The writer has installed over 2,200 stokers and over 800 gas producers and has had considerable experience with powdered coal as well as with natural gas and oil. Having made a life study of fuels he insists that the stoker fired furnace is a far better investment than anything else he has ever encountered.

PLATE AND SHEET PRODUCTION.

	1894.	1895.	1896.	1897.
Plates,				
8-heavier	375,117	508,343	458,136	597,549
Sheets,				
9—19....	80,099	112,537	113,826	107,891
20—25...	73,968	91,449	89,760	96,930
26-lighter	153,716	279,130	304,054	404,916
Total sheets	307,783	483,116	507,640	609,737

	1898.
Plates, No. 8 and heavier	638,861
Sheets, Nos. 9 to 17	117,505
Sheets, No. 18 and lighter	691,935.
Total sheets, No. 9 and lighter ..	809,440

	Plates, 12 down.	Sheets, 13 up.	Black plates.	Total sheets and black plates.
1905.	2,041,206	983,437	507,587	1,491,024
1906.	2,531,552	1,074,525	576,079	1,650,604
1907.	2,660,060	1,084,700	504,072	1,588,772
1908.	1,271,021	864,901	513,771	1,378,672
1909.	2,379,098	1,248,404	606,482	1,854,886
1910.	2,807,727	1,435,619	712,137	2,147,756
1911.	2,334,341	1,358,110	795,598	2,153,708
1912.	3,035,200	1,857,683	982,197	2,839,880

Note—Gross tons throughout. No separate statistics were collected prior to 1894, or between 1898 and 1905; above statistics 1894-8 include black plates; total plate, sheet and black plate production and separate black plate production shown elsewhere.

WEST PENN STEEL CO.

BRACKENRIDGE, PA.

(Pittsburgh District)

SPECIALISTS IN

Sheet Steel of Quality

Auto Steel, Bow Socket Metal Furniture Stock

SHEET STEEL For Light Tubing

ELECTRICAL SHEETS For Armatures and Transformers

SHEETS.

Black sheets, 28 gauge, Pittsburg:

	High.	Low.
1896	2.45	2.15
1897	2.15	1.95
1898	2.05	1.80
1899	3.35	2.00
1900	3.25	2.90
1901	3.85	3.00
1902	3.10	2.75
1903	2.70	2.35
1904	2.30	2.00
1905	2.40	2.15
1906	2.60	2.30
1907	2.60	2.45
1908	2.60	2.45
1909	2.40	2.15
1910	2.40	2.15
1911	2.20	1.75
1912	2.25	1.80
1913	2.35	1.80

Official price changes, with dates; principal periods of open price competition indicated; flat sheets per pound, corrugated per square, 28 gauge; all f.o.b. mill, Pittsburg:

	Flat Sheets.		Corrugated.	
	Black.	Galv.	P'nt'd.	Galv.
Dec. 8, 1904	2.20	3.35	1.60	2.75
Dec. 22, 1904	2.30	...	1.65	2.85
Feb. 9, 1905	...	3.45	...	2.95
Mar. 16, 1905	2.40	...	1.75	...
Competition; low..	2.15	3.20	1.55	2.80
Nov. 20, 1905	2.30	3.35	1.65	2.95
Jan. 8, 1906	2.40	3.45	...	3.00
June 5, 1906	2.50	3.55	1.75	3.10
Oct. 25, 1906	2.60	3.65	1.85	3.15
Jan. 24, 1907	...	3.75	...	3.25
Jan. 6, 1908	2.50	3.55	1.75	3.10
Feb. 24, 1909	2.20	3.25	1.65	2.90
Competition; low..	2.15	3.15	1.50	2.70
Sept. 28, 1909	2.30	3.35	1.60	2.85
Nov. 12, 1909	2.40	3.50	1.70	3.00

The Parkersburg Iron and Steel Co.

PARKERSBURG, W. VA.

Manufacturers of

Parkersburg Smooth Galvanized

Parkersburg Blue

Sheets

Budke Manufacturing Co.

PARKERSBURG, W. VA.

Manufacturers of

Acme Stove Pipe

Stove Pipe Elbows

Acme Dripping Pans

SEND FOR CATALOGUE

YOUR INQUIRIES SOLICITED

SHEETS.

Basis f.o.b. mill, Pittsburgh; averaged from open quotations:

	Black, No. 28				Galvanized No. 28			
	1910.	1911.	1912.	1913.	1910.	1911.	1912.	1913.
January	2.40	2.20	1.90	2.32	3.50	3.20	2.90	3.47
February	2.40	2.20	1.85	2.35	3.50	3.20	2.86	3.50
March	2.40	2.20	1.80	2.35	3.50	3.20	2.80	3.50
April	2.40	2.20	1.85	2.35	3.50	3.20	2.87	3.45
May	2.40	2.20	1.90	2.35	3.50	3.20	2.94	3.40
June	2.35	2.00	1.90	2.29	3.45	3.00	2.95	3.38
July	2.25	2.00	1.96	2.25	3.30	3.00	3.01	3.31
August	2.20	1.91	2.03	2.20	3.25	2.93	3.12	3.25
September	2.15	1.90	2.12	2.12	3.20	2.90	3.25	3.17
October	2.18	1.85	2.20	2.04	3.20	2.87	3.35	3.08
November	2.15	1.84	2.25	1.98	3.18	2.84	3.40	2.98
December	2.18	1.85	2.25	1.85	3.20	2.85	3.40	2.85
Year	2.29	2.03	2.00	2.20	3.37	3.03	3.07	3.28

Quality— —*Service*

PITTSBURGH

APOLLO

Best Bloom

Galvanized Sheets

"A product without a peer"

WE ALSO MANUFACTURE

Black Sheets of Every Description
Copper Bearing Roofing Tin
Copper Bearing Sheets
Polished Steel Sheets
Bright Tin Plates
Special Sheets
Planished Iron Sheets
Formed Roofing Products, Etc.

Write us for full information and quotations on Sheet and Tin Mill Products of every description

AMERICAN SHEET AND TIN PLATE COMPANY

Gen'l Offices: Frick Bldg., Pittsburgh, Pa.

DISTRICT SALES OFFICES

Chicago, Cincinnati, Denver, Detroit, New Orleans, New York, Philadelphia, Pittsburgh, St. Louis

Export Representatives: U. S. Steel Products Company, New York City

Pac. Coast Representatives: U. S. Steel Products Company, San Francisco, Los Angeles, Portland, Seattle

SHEETS—CORRUGATED ROOFING.

Averaged from open quotations; basis No. 28 gauge, f.o.b. mill, Pittsburgh.

	Painted				Galvanized			
	1910.	1911.	1912.	1913.	1910.	1911.	1912.	1913.
January	1.70	1.55	1.33	2.52	3.00	2.75	2.46	3.52
February	1.70	1.55	1.33	2.55	3.00	2.75	2.47	3.55
March	1.70	1.55	1.33	2.55	3.00	2.75	2.47	3.55
April	1.70	1.55	1.34	2.55	3.00	2.75	2.50	3.50
May	1.70	1.55	*1.35	2.50	3.00	2.75	*2.55	3.45
June	1.65	1.40	†2.10	2.45	2.90	2.55	†3.05	3.40
July	1.60	1.40	2.16	2.45	2.85	2.55	3.06	3.35
August	1.60	1.34	2.20	2.40	2.80	2.49	3.17	3.30
September	1.55	1.33	2.32	2.30	2.75	2.46	3.30	3.20
October	1.55	1.30	2.35	2.22	2.75	2.44	3.40	3.10
November	1.55	1.29	2.43	2.15	2.75	2.41	3.45	3.00
December	1.55	1.30	2.45	2.05	2.75	2.42	3.45	2.92
Year	1.63	1.43	‡1.46	2.39	2.88	2.59	‡2.66	3.32

* Quotations per square end. † Quotations per pound begin; April 19, 1912, American Sheet & Tin Plate Company began selling exclusively per pound at following differentials over flat sheets; forming painted or galvanized, 5c per 100 lbs.; painting gauges 12—18, 5c; 19—24, 10c; 25—28, 15c. This basis adopted immediately by some independents, wthin few weeks by others. ‡ Per square

Carnahan
Tin Plate & Sheet Company

CANTON, OHIO

Tin and Terne Plates

Carnahan Genuine Charcoal Iron Ternes

Polished and Blued Sheets

(Uniform Color, High Finish)

Special Automobile Sheets

Deep Drawing & Stamping Steel

Made From

Special Analysis Open-Hearth Steel.

TIN PLATE PRODUCTION.

Col. Ayer's reports through 1896; American Iron and Steel Association reports for subsequent years; Col. Ayer's reports covered black plate for all purposes; Association reports designate "Black plate for tinning".

	Tin and Terne Plate.	Black Plate.
1891	999	3,919
1892	18,803	18,071
1893	55,182	31,997
1894	74,260	56,159
1895	113,666	124,252
1896	160,362	163,924
1897	256,598	271,886
1898	326,915	345,254
1899	360,875	375,000
1900	302,665	315,000
1901	399,291	398,026
1902	360,000	365,743
1903	480,000	490,652
1904	458,000	472,569
1905	493,500	507,587
1906	577,562	576,079
1907	514,775	504,072
1908	537,087	513,771
1909	611,959	606,482
1910	722,770	712,137
1911	783,960	795,598
1912	962,971	982,197
1913	900,000*	900,000*

* Estimated.

PHILLIPS

SHEET & TIN PLATE CO.

WEIRTON, W. VA.

ONE TWENTY MILL PLANT - WEIRTON
ONE TWELVE MILL PLANT - CLARKSBURG
ONE TWELVE MILL PLANT - STEUBENVILLE

THREE SEPARATE PLANTS
FORTY FOUR MILLS

ANNUAL OUTPUT **Four Million**
BOXES **TIN PLATES**

Roofing Plates - All Grades

Sanitary **Laquered Plates** Strip
Coke **"CLEAN & BRIGHT"** Plates

ABOVE MEANS BEST SERVICE TO BE HAD. YOUR ACCOUNT SOLICITED

SALES OFFICES

50 Church Street, New York
Betz Building, Philadelphia
Security Building, St. Louis
Fiske Building, Boston
Ogden Building, Chicago
Balfour, Guthrie & Co.
Seattle, Portland, Vancouver, San Francisco
Los Angeles

TIN PLATE PRICE CHANGES.

Changes in prices per box 14x20 prime Bessemer, 100 lb., f.o.b. mill. Pittsburgh district, with prices of pig tin, New York and sheet bars, Pittsburgh, same date.

	Tin Plates.	Tin.	Sheet Bars.
Jan. 6, 1899	3.00	20.75	17.50
Jan. 26, 1899....	3.25	24.50	18.50
Feb. 17, 1899....	3.50	23.75	22.00
Mar. 8, 1899.....	3.87½	23.70	25.00
July 14, 1899....	4.37½	29.12½	33.50
Aug. 6, 1899....	4.65	31.25	36.00
Sept. 24, 1900...	4.00	28.62½	22.00
Nov. 3, 1902....	3.60*	26.75	31.75
Mar. 3, 1903.....	3.80*	30.80	31.50
Nov. 16, 1903....	3.60*	25.40	24.00
Jan. 25, 1904....	3.45*	28.20	24.00
July 25, 1904.. (a)	3.30*	27.10	24.00
Nov. 15, 1904....	3.45*	29.15	22.50
Dec. 22, 1904....	3.55*	29.25	23.00
Oct. 3, 1905.....	3.35*	32.60	26.00
Oct. 20, 1905....	3.45*	32.60	26.00
Nov. 20, 1905....	3.40*	33.55	26.00
Jan. 8, 1906.....	3.50*	36.25	26.00
April 10, 1906....	3.60*	38.75	28.00
May 19, 1906....	3.75*	44.75	28.00
Oct. 25, 1906....	3.90*	43.25	30.00
Jan. 6, 1908.....	3.70*	27.35	29.00
Mar. 10, 1909....	3.40	28.70	25.00
Sept. 28, 1909....	3.50	30.85	27.50
Nov. 12, 1909....	3.60	30.50	28.50
Feb. 3, 1911.....	3.70	41.40	24.00
Aug. 12, 1911.. .	3.60	43.00	22.00
Oct. 16, 1911....	3.40	41.70	20.00
July 9, 1912.....	3.50	44.40	22.00(b)
Sept. 4, 1912.....	3.60	47.20	23.75(b)
Oct. 2, 1913.....	3.50	41.20	25.00
Nov. 3, 1913.....	3.40	39.90	21.50

* Subject to 5-cent rebate.
(a) Cash discount changed from 1 to 2 per cent.
(b) Premium for open-hearth.

WASHINGTON TIN PLATE COMPANY

Manufacturers of

Coke

Tin

Plates

Annual Capacity
500,000 BASE BOXES

Main Office and Works
WASHINGTON, PA.

TIN PLATE PRICES.

Average yearly price of J. B. grade coke tin plates, 14x20 I. C., 108 pounds delivered at New York:

1880	$6.75
1881	5.45
1882	5.30
1883	5.10
1884	4.70
1885	4.40
1886	4.30
1887	4.60
1888	4.55
1889	4.55

Imported Bessemer cokes 14x20, 108 lbs.

1890	4.80
1891	5.34
1892	5.30
1893	5.37
1894	4.89
1895	3.87

American Bessemer cokes, 14x20, 108 lbs.

1896	3.63
1897	3.26
1898	2.99
1899	4.41
1900	4.82
1901	4.35
1902	4.28
1903	4.09
1904	3.76
1905	3.85
1906	4.04
1907	4.25
1908	4.05
1909	3.83
1910	3.93
1911	3.98
1912	3.78
1913	3.89

A SITUATION AND ITS ANSWER.

5½ Million Boxes Tin Plate
22 Million Boxes Tin Plate

When the McKinley Protective Tariff became effective on TIN PLATE, in 1891, there was no domestic production, and the imports had been averaging 7,000,000 boxes a year, of which 1,500,000 boxes were re-exported leaving 5,500,000 boxes for the domestic demand In 1912 the American mills made 22,000,000 boxes, FOUR TIMES the domestic demand 21 years earlier.

To supply the rapidly growing consumption NEW MILLS had to be built constantly.

We have the latest of the New Mills and are booking orders for

COKE TIN PLATE

TIN MILL SIZES BLACK SHEETS

Common Finish
Pickled and Annealed
Pickled, Cold Rolled and Annealed

Wheeling Sheet and Tin Plate Company

YORKVILLE, OHIO

TIN PLATE.

Fiscal Year.	Imports. Pounds.	Drawback. Pounds.	Difference. Pounds.
1889.	735,779,988	166,087,740	569,692,248
1890.	680,060,925	150,112,007	529,948,918
1891.	1,036,489,074	149,599,649	886,889,425
1892.	422,176,202	119,928,083	302,248,119
1893.	628,425,902	128,863,227	499,562,675
1894.	454,160,826	161,758,361	292,402,465
1895.	508,038,938	126,777,800	381,261,138
1896.	385,138,983	137,659,779	247,479,204
1897.	230,073,683	139,246,130	90,827,553
1898.	171,662,345	137,897,570	33,764,775
1899.	108,484,826	122,906,682	14,421,856*
1900.	147,963,804	125,269,156	22,694,648
1901.	117,880,312	127,261,883	9,381,571*
1902.	198,996,086	125,340,511	73,655,575
1903.	109,913,293	123,088,272	13,174,979*
1904.	126,909,360	111,658,352	15,251,008
1905.	161,066,820	151,677,870	9,388,950
1906.	120,819,732	120,455,345	364,387
1907.	142,529,406	102,712,630	39,816,776
1908.	140,739,972	158,911,418	18,171,446*
1909.	117,312,174	116,829,347	482,827
1910.	154,566,599	141,732,141	12,834,458
1911.	95,319,730	122,812,589	27,492,859*
1912.	6,613,253	32,227,748	25,614,495*
1913.	28,344,243	.....	.....

* Excess of drawback over imports. Drawback is frequently allowed long after the original importation.

Calendar years; gross tons.

	Imports.	Exports.		Imports.	Exports.
1897..	83,851	2*	1906..	56,983	12,082
1898..	66,775	46	1907..	57,773	10,203
1899..	58,915	133	1908..	58,490	11,878
1900..	60,386	273	1909..	62,593	9,327
1901..	77,395	439	1910..	66,640	12,445
1902..	60,115	1,566	1911..	14,099	61,381
1903..	47,360	292	1912..	2,052	81,694
1904..	70,652	7,898	1913..	16,000†	61,000†
1905..	65,740	7,941			

* Figures not compiled by government prior to December 1, 1897.

† With November and December estimated.

American Can Company

TIN CANS and BOXES

Of All Kinds

PLAIN OR DECORATED

GALVANIZED WARE

RETINNED WARE

SHEET METAL SPECIALTIES

DECORATED AND EMBOSSED SHEETS

General Office: 447 W. 14th St.
NEW YORK

District Offices:
NEW YORK CHICAGO
SAN FRANCISCO
PORTLAND, ORE. MONTREAL

Local Sales Offices:

Philadelphia	Richmond	New Orleans
Toledo	Atlanta	Kansas City
Baltimore	Cleveland	Los Angeles
Buffalo	Boston	St. Paul
Detroit	Cincinnati	Milwaukee
Pittsburgh	Indianapolis	Dallas
Hamilton, Ont.		St. Louis
Vancouver, B. C.		Winnipeg, Manitoba

FLUCTUATIONS IN CAN PRICES.

Schedule of changes in can prices of the American Can Company is given below:

Published date.	1's.	2's.	3's.	10's.
March 28, 1901...		$18.00	24.00	
April 11 1901....		18.00	24.00	$55.00
April 25, 1901....		18.50	24.50	60.00
May 1, 1901.....		19.00	25.00	60.00
June 1, 1901.....		19.50	26.00	60.00
July 1, 1901.....		20.00	27.00	60.00
August 1, 1901...		22.50	30.00	67.00
November 1,1901	$12.50	17.50	22.50	55.00
December 1, 1901	11.00	15.00	20.00	45.00
March 5, 1903....	11.50	16.00	21.50	47.50
January 5, 1904..	11.00	14.50	19.50	45.00
October 27, 1904.	10.00	13.00	17.00	42.50
November 16, 1905	9.50	12.50	17.00	42.50
November 30, 1905	9.50	12.50	16.50	40.00
December 7, 1905	9.50	12.00	16.00	40.00
March 1, 1906....	9.50	12.50	16.50	40.00
January 2, 1907..	10.50	13.50	17.70	43.00
February 28, 1907	10.30	13.90	18.40	44.50
July 4, 1907.....	10.30	14.25	19.00	46.00
January 8, 1908..	9.75	13.25	17.75	42.00
June 1, 1908.....	10.20	14.00	18.40	45.00
February 2, 1909.	10.00	13.75	18.25	44.00
March 10, 1909...	9.50	13.00	17.00	41.75
April 9, 1909.....	9.50	12.00	16.00	40.00
December 8, 1909..	8.75	11.50	15.50	40.00
December 27, 1910	9.25	12.50	16.75	42.00
December 7, 1911.	9.00	12.00	16.25	42.00
*January 6, 1913..	9.50	12.75	17.25	44.00
*January 5, 1914..	9.25	12.25	17.00	43.50

* Season's prices.

McKeesport Tin Plate Company

MAIN OFFICE AND WORKS

McKEESPORT, PA.

COKE TIN PLATE
BLACK PLATE

Twenty-Two Tin Mills

SHIPPING ADDRESS

McKEESPORT, PA., P. & L. E. R. R.

PRODUCTION OF STEEL INGOTS AND CASTINGS.—Gross tons.

	Basic. O. H.	Acid. O. H.	Total. O. H.	Bessemer	Crucible	Uncl.	Total steel.
1897.....	1,056,043	552,628	1,608,671	5,475,315	69,959	3,012	7,156,957
1898.....	1,569,412	660,880	2,230,292	6,609,017	89,747	3,801	8,932,857
1899.....	2,080,426	866,890	2,947,316	7,586,354	101,213	4,974	10,639,857
1900.....	2,545,091	853,044	3,398,135	6,684,770	100,562	4,862	10,188,329
1901.....	3,618,993	1,037,316	4,656,309	8,713,302	98,513	5,471	13,473,595
1902.....	4,496,533	1,191,196	5,687,729	9,138,363	112,772	8,386	14,947,250
1903.....	4,734,913	1,094,998	5,829,911	8,592,829	102,434	9,804	14,534,978
1904.....	5,106,367	801,799	5,908,166	7,859,140	83,391	9,190	13,859,887
1905.....	7,815,728	1,155,648	8,971,376	10,941,375	102,233	8,963	20,023,947
1906.....	9,658,760	1,321,653	10,980,413	12,275,830	127,513	14,380	23,398,136
1907.....	10,279,315	1,270,421	11,549,736	11,667,549	131,234	14,075	23,362,594
1908.....	7,140,425	696,304	7,836,729	6,116,755	63,631	6,132	14,023,247
1909.....	13,417,472	1,076,464	14,493,936	9,330,783	107,355	22,947	23,955,021
1910.....	15,292,329	1,212,180	16,504,509	9,412,772	122,303	55,335	26,094,919
1911	14,685,932	912,718	15,598,650	7,947,854	97,653	31,949	23,676,106
1912	19,641,502	1,139,221	20,780,723	10,327,901	121,517	21,162	31,251,303

File This Page for Reference, Please

Pig Iron—Coke

Washed Metal
for recarburizing Crucible and Acid Open Hearth Steel.
Send for complete information.

Black and Galvanized Sheets
of Bessemer or Open Hearth Steel and "Old-Fashion Iron"—genuine puddled iron—Send for the story of an "Old-Fashion Iron" Sheet—illustrated.

Uniform Blue Sheets

Corrugated Sheets & Roofing
Roll Roofing, V-Crimp roofing, Pressed Standing Seam Roofing, etc.

Corrugated Siding
Brick, Rock-faced, Beaded and Weatherboard Siding.

Metal Shingles
Send for fully descriptive folder.

Metal Ceilings
Large, complete catalogue showing many designs. Interesting proposition to jobbers.

Metal Lath

Eaves Trough and Conductor

Pipe, Steel Sheets
for Agricultural Implements.
Send for catalogue.

Maximum Sizes of Sheets

Gauge	
12...	36 x 96
13...	40 x 96
14...	40 x 120
15...	40 x 120
16...	40 x 144
18...	40 x 144
20...	40 x 144
22...	40 x 144
24...	40 x 144
26...	40 x 144
27...	40 x 144
28...	40 x 120
29...	40 x 120
30...	40 x 96
30...	32 x 120
28...	36 x 144
29...	36 x 144

Send for new 168 Page Brier Hill Reference Book.

THE BRIER HILL STEEL CO.

YOUNGSTOWN, OHIO

New York Office, 286 Fifth Avenue
Chicago Office and Warehouse, 3604-6-8 S. Morgan St.

PRODUCTION OF ROLLED IRON AND STEEL—Gross Tons.

Year.	Iron and steel rails.	Plates and sheets.	Wire rods.	Structural shapes.	Nail plate	Bars, hoops and all other.	Total
1893 ..	1,136,458	674,345	537,272	387,307	136,113	2,104,190	4,975,685
1894 ..	1,021,772	682,900	673,402	360,305	108,262	1,795,570	4,642,211
1895 ..	1,306,135	991,459	791,130	517,920	95,085	2,487,845	6,189,574
1896 ..	1,122,010	965,776	623,986	495,571	72,137	2,236,361	5,515,841
1897 ..	1,647,892	1,207,286	970,736	583,790	94,054	2,497,970	7,001,728
1898 ..	1,981,241	1,448,301	1,071,683	702,197	70,188	3,239,760	8,513,370
1899 ..	2,272,700	1,903,505	1,036,398	850,376	85,015	4,146,425	10,294,419
1900 ..	2,385,682	1,794,528	846,291	815,161	70,245	3,575,536	9,487,443
1901 ..	2,874,639	2,254,425	1,365,934	1,013,150	68,850	4,772,329	12,349,327
1902 ..	2,947,933	2,665,409	1,574,293	1,300,326	72,936	5,383,219	13,944,116
1903 ..	2,992,477	2,599,665	1,503,455	1,095,813	64,102	4,952,185	13,207,697
1904 ..	2,284,711	2,421,398	1,699,028	949,146	61,601	4,597,497	12,013,381
1905 ..	3,375,929	3,532,230	1,808,688	1,660,519	64,542	6,398,107	16,840,015
1906 ..	3,977,887	4,182,156	1,871,614	2,118,772	54,211	7,383,828	19,588,468
1907 ..	3,633,654	4,248,832	2,017,583	1,940,352	52,027	7,972,374	19,864,822
1908 ..	1,921,015	2,649,693	1,816,949	1,083,181	45,747	4,311,608	11,828,193
1909 ..	3,023,845	4,234,346	2,335,685	2,275,562	63,746	7,711,506	19,644,690
1910 ..	3,636,031	4,955,484	2,241,830	2,266,890	45,294	8,475,750	21,621,279
1911 ..	2,822,790	4,488,049	2,450,453	1,912,367	48,522	7,316,990	19,039,171
1912 ..	3,327,915	5,875,080	2,653,553	2,846,487	45,331	9,908,475	24,656,841

CAMBRIA STEEL PRODUCTS

CAMBRIA STEEL COMPANY

Johnstown, Pa.

District Sales Offices:

Atlanta	Cleveland	Philadelphia
Boston	Detroit	Pittsburgh
Chicago	Montreal	San Francisco
Cincinnati	New York	St. Louis
	Tacoma	

ROLLED IRON AND STEEL.—Gross Tons.

	1911			1912		
	Iron.	Steel.	Total.	Iron.	Steel.	Total.
Rails	234	2,822,556	2,822,790	.....	3,327,915	3,327,915
Structural shapes	811	1,911,556	1,912,367	5,517	2,840,970	2,846,487
Plates, 12 and heavier.	46,147	2,288,194	2,334,341	33,349	3,001,851	3,035,200
Sheets, 13 and lighter..	43,280	2,110,428	2,153,708	41,695	2,798,185	2,839,880
Merchant bars	835,625	2,211,737	3,047,362	944,790	2,752,324	3,697,114
Concrete reinforcing bars	2,388	256,353	258,741	2,500	271,832	274,332
Sheet piling	.....	22,827	22,827	.....	22,276	22,276
Railroad ties	.....	39,197	39,197	.....	41,396	41,396
Hoops	.....	225,074	225,074	.....	270,007	270,007
Bands and cotton ties.	12	342,798	342,810	.....	587,395	587,395
Splice bars	14,694	148,876	163,570	51,657	520,115	*571,772
Wire rods	610	2,449,843	2,450,453	1,289	2,652,264	2,653,553
Skelp, flue, etc.	322,397	1,658,276	1,980,673	327,012	2,119,804	2,446,816
Nail and spike plate ..	9,951	38,571	48,522	8,673	36,658	45,331
Forging blooms & billets	363	230,752	231,115	303	462,173	462,476
Billets, etc. for export	(not stated)			.....	347,783	347,783
All other finished rolled	184,103	821,518	1,005,621	220,797	966,311	1,187,108
Total	1,460,615	17,578,556	19,039,171	1,637,582	23,019,259	24,656,841

* Includes tie plates, which were included with plates in 1911

TRIMBLE, MUDGE & COMPANY

IRON and STEEL SCRAP

Melting—Re-rolling—Piling

General Offices:
Frick Buiding
PITTSBURG

HEAVY MELTING STEEL SCRAP, PITTSBURGH.

Averaged from daily quotations; delivered Pittsburgh points:

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	11.90	16.75	16.90	18.75	12.25	16.50	17.85	13.75	12.75	15.00
February ..	13.75	16.60	15.75	18.00	13.50	16.00	17.10	14.37	12.58	14.35
March	14.30	16.45	15.00	18.00	13.25	14.50	17.00	14.35	12.72	14.35
April	13.30	16.15	14.65	18.00	12.75	14.25	16.70	13.15	12.90	14.25
May	11.70	15.15	15.40	18.10	12.60	15.00	15.60	12.80	13.25	13.50
June	11.40	14.30	15.75	18.25	13.25	15.90	15.25	12.87	13.45	13.20
July	11.00	14.50	15.85	18.10	14.10	15.95	14.50	13.06	13.57	12.50
August	11.75	15.35	16.50	17.50	14.85	16.50	14.30	13.35	13.60	12.40
September .	12.00	15.75	16.80	17.25	14.35	17.40	14.35	12.93	14.10	12.60
October ..	12.50	16.75	17.15	17.00	14.80	18.00	14.40	12.15	15.75	12.25
November .	14.60	17.65	18.35	14.75	15.75	18.00	14.25	12.13	15.35	11.40
December .	16.50	17.75	19.75	13.00	16.50	18.10	13.80	12.65	15.10	11.00
Average .	12.89	16.10	16.49	17.22	14.00	16.34	15.42	13.13	13.76	13.07

BUNDLED SHEET SCRAP, PITTSBURGH.

Averaged from daily quotations; delivered Pittsburgh points:

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	8.25	15.15	15.60	16.50	8.90	14.00	15.40	9.80	10.90	13.10
February	8.50	14.50	14.35	16.25	9.00	13.00	15.25	11.20	10.72	12.00
March	8.50	15.00	13.80	16.50	9.25	11.75	14.75	11.50	10.80	11.60
April	8.75	15.00	13.30	16.50	8.75	11.75	14.15	11.25	11.15	10.50
May	8.50	14.00	13.75	16.45	9.00	12.10	12.65	10.65	11.40	10.00
June	7.50	12.70	13.75	16.50	9.75	13.00	11.90	10.75	12.00	9.25
July	7.50	12.65	13.75	16.00	10.75	14.15	11.00	11.43	12.35	8.75
August	9.00	13.00	14.25	15.25	11.85	14.80	10.75	11.75	12.25	8.25
September ..	9.25	13.65	14.80	14.75	11.75	15.30	10.75	11.12	12.25	8.00
October	10.50	14.50	15.20	13.75	12.10	15.90	10.85	10.15	12.95	7.40
November ..	12.25	15.40	16.60	11.25	12.80	16.25	10.80	10.12	13.12	6.75
December ...	14.25	15.70	17.75	10.00	13.50	16.00	10.20	10.50	13.15	6.40
Average ..	9.40	14.27	14.74	14.97	10.62	14.00	12.37	10.85	11.92	9.33

NO. 1 R. R. WROUGHT SCRAP, PITTSBURGH.

Averaged from daily quotations; delivered Pittsburgh; gross tons:

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	13.25	19.50	20.25	20.00	13.75	17.25	18.75	14.15	13.50	15.35
February ...	14.50	19.25	19.00	19.50	13.65	16.50	18.60	14.00	13.20	15.35
March	15.50	19.25	18.00	19.45	14.00	14.00	18.25	14.20	13.00	15.35
April	16.75	19.00	17.00	19.25	13.75	13.60	17.75	14.25	13.00	15.50
May	16.00	16.75	17.75	19.00	13.75	14.25	16.50	13.75	13.25	15.00
June	14.50	16.25	17.50	18.75	13.65	15.10	16.00	13.50	13.70	14.25
July	13.25	15.75	16.75	18.25	13.45	15.90	15.10	13.50	14.10	13.35
August	13.00	16.50	17.35	17.40	13.75	16.50	14.75	13.75	14.15	13.25
September .	13.25	17.00	18.50	17.25	15.00	17.90	14.75	13.64	14.50	13.00
October	13.25	19.00	20.20	16.85	16.25	19.15	14.75	12.87	15.80	13.00
November ..	15.50	20.00	21.15	15.50	16.95	19.35	15.10	12.65	16.00	11.85
December ..	19.50	20.00	21.10	14.25	17.00	19.25	14.55	12.35	15.75	11.65
Average ..	14.85	18.19	18.71	17.95	14.58	16.56	16.24	13.55	14.16	13.91

NO. 1 CAST SCRAP, PITTSBURGH.

Averaged from daily quotations; delivered Pittsburgh points; gross tons:

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	11.50	15.80	15.75	20.10	14.00	15.00	16.60	13.75	12.50	14.65
February ...	12.40	15.40	15.60	20.10	14.50	14.60	16.65	13.85	12.37	14.65
March	13.50	15.25	15.30	20.50	14.65	14.00	16.55	14.00	12.37	14.60
April	13.25	15.25	15.15	20.60	14.35	14.10	16.10	13.65	12.40	14.50
May	11.00	14.75	15.30	21.00	14.00	14.60	15.35	13.25	12.40	14.25
June	9.50	13.80	15.35	21.00	13.65	15.10	15.10	13.25	13.00	13.50
July	9.35	14.10	15.35	20.75	14.00	15.20	14.75	13.32	13.37	12.30
August	10.50	14.50	15.75	19.90	14.15	15.50	14.50	13.37	13.35	12.50
September .	10.60	14.75	16.65	19.25	13.85	16.10	14.25	13.20	13.40	12.50
October	11.15	15.25	17.80	18.65	14.25	16.90	14.25	12.60	14.05	12.40
November .	13.35	15.75	19.25	16.50	14.35	17.30	14.15	12.37	15.00	12.00
December ..	15.50	15.75	20.10	14.50	14.60	16.90	14.00	12.35	15.10	11.60
Average ..	11.80	15.03	16.45	19.40	14.20	15.44	15.19	13.25	13.28	13.29

HEAVY MELTING STEEL SCRAP, CHICAGO.

Delivered Chicago; average monthly quotations, gross tons:

	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Jan..	18.05	10.12	14.87	14.95	16.80	11.05	14.25	16.50	12.20	11.00	12.75
Feb..	18.12	10.87	14.12	13.63	15.75	12.50	13.75	15.85	12.10	10.75	12.65
Mar.	18.31	11.50	14.45	13.00	16.00	11.44	12.50	15.35	12.35	10.80	12.50
April	18.35	11.25	14.37	13.50	15.75	11.05	12.75	15.25	11.95	12.10	12.60
May.	17.62	9.75	12.55	13.70	15.60	10.62	13.75	13.25	11.10	12.70	11.50
June	16.50	9.30	11.95	13.13	16.25	11.62	14.50	13.40	10.80	12.25	10.75
July.	16.30	9.00	12.75	13.13	16.12	11.75	14.25	12.80	10.97	12.15	10.60
Aug.	16.00	9.25	13.15	14.10	15.10	12.88	15.10	12.70	11.00	12.10	10.75
Sept.	13.75	10.00	14.37	16.50	14.75	13.00	16.00	12.75	11.00	12.50	10.60
Oct..	12.80	10.87	14.50	16.60	14.70	13.45	16.50	12.60	10.50	14.00	10.35
Nov.	11.25	12.55	15.20	17.50	12.63	14.88	16.25	12.50	10.00	13.80	10.25
Dec.	9.00	14.15	15.25	17.13	11.50	15.17	16.00	12.45	10.50	13.40	9.25
Av'ge	15.50	10.72	13.96	14.74	15.08	12.45	14.63	13.78	11.21	12.30	11.21

Frank Samuel S. M. Tomlinson S. A. Cochran

Frank Samuel

HARRISON BUILDING

PHILADELPHIA, PA., U. S. A.

Importer - Exporter

IRON, STEEL ORES, ALLOYS

PIG IRON. For all purposes guaranteed to analysis.

Spiegeleisen, Ferro-Manganese, Ferro-Silicon, Silico-Spiegel

ORES, Manganese, Chrome and Iron

SPECIAL LOW PHOSPHORUS MELTING BARS for crucible steel---guaranteed phosphorus and sulphur.

COAL AND COKE

SCRAP IRON, of all classes, for Rolling Mills

STEEL SCRAP, ordinary and guaranteed, for melting purposes.

STEEL SCRAP, PHILADELPHIA.

No. 1 steel scrap, delivered Eastern Pennsylvania, monthly averages, gross tons.

	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	18.50	12.00	17.25	17.25	12.75	12.50	14.50
February	19.00	14.50	15.75	16.75	13.20	12.00	13.25
March	19.25	13.25	13.75	16.60	13.65	12.20	13.60
April	19.00	13.00	13.75	16.25	13.25	13.25	13.75
May	19.50	14.00	14.50	15.00	12.80	13.50	12.25
June	19.25	13.50	15.75	14.75	13.00	13.50	11.50
July	18.25	14.00	16.00	14.25	13.03	13.60	11.15
August	17.00	14.75	16.75	14.00	13.35	14.25	11.85
September	16.75	15.50	17.75	14.00	12.72	15.25	12.25
October	16.00	15.25	18.25	13.75	12.20	15.75	11.20
November	13.25	16.25	18.00	13.65	11.90	15.30	10.30
December	11.75	17.00	17.50	13.00	12 35	14.75	9.75
Average	17.29	14.42	16.25	14.94	12.85	13.82	12.12

SCRAP, CHICAGO.

Iron and steel scrap, delivered Chicago.

	Heavy cast. Net.	No. 1 R.R. wrought. Net.	Old rails.* Gross.	Heavy melting. Gross
1893..	10.00	9.25	16.25	
1894..	7.50	6.85	10.83	
1895..	8.37	7.67	14.12	
1896..	8.48	7.00	13.50	
1897..	7.25	6.44	11.67	
1898..	8.15	6.62	12.37	
1899..	12.40	10.15	21.00	
1900..	11.00	8.00	17.90	12.80
1901..	11.25	10.80	19.50	12.90
1902..	15.03	13.81	23.91	17.37
1903..	14.74	16.07	20.29	15.50
1904..	10.95	12.45	16.56	10.72
1905..	13.49	16.14	20.18	13.96
1906..	14.55	15.62	23.04	14.74
1907..	17.26	14.63	22.47	15.08
1908..	12.69	12.45	16.60	12.45
1909..	13.79	13.76	18.31	14.63
1910..	13.46	13.00	17.85	13.78
1911..	11.00	11.25	14.70*	11.21
1912..	12.31	12.50	14.18*	12.30
1913..	11.41	10.90	13.32*	11.21

* Old iron rails through 1911; steel rerollers thereafter

	No. 1 cast, Net.		Rerolling rails, gross.	
	1912.	1913.	1912.	1913.
Jan. ...	11.15	13.00	13.00	16.25
Feb. ..	11.25	12.85	12.90	15.50
Mar. ...	11.50	12.75	12.75	15.00
April ..	12.50	12.65	12.80	14.50
May ...	12.15	11.75	13.40	13.90
June ...	11.90	11.00	13.50	12.65
July ...	11.75	10.60	13.50	12.15
Aug. ...	11.90	10.60	14.00	12.25
Sept. ...	12.50	11.00	15.00	12.15
Oct. ...	14.25	10.50	16.25	12.10
Nov. ...	13.65	10.25	16.50	11.90
Dec. ...	13.25	10.00	16.50	11.50
Year .	12.31	11.41	14.18	13.32

U. S. STEEL CORPORATION.

	Total earnings.	Steel Products for sale.	Average per ton.
1902	$133,308,764	$8,033,556	$16.59
1903	109,171,152	7,458,879	14.64
1904	73,176,522	6,792,780	10.77
1905	119,787,658	9,226,386	12.98
1906	156,624,273	10,578,433	14.81
1907	160,964,674	10,376,742	15.51
1908	91,847,711	6,206,932	14.80
1909	131,491,414	9,859,660	13.34
1910	141,054,755	10,733,995	13.14
1911	104,305,466	9,476,248	11.01
1912	108,174,673	12,506,619	8.65
1913	*140,000,000	*12,500,000	*11.20

* Estimated.

UNFILLED ORDERS.

At end of quarter:

	First.	Second.	Third.	Fourth.
1903..	5,410,719	4,666,578	3,278,742	3,215,123
1904..	4,136,961	3,192,277	3,027,436	4,696,203
1905..	5,579,560	4,829,655	5,865,377	7,605,086
1906..	7,018,712	6,809,584	7,936,884	8,489,718
1907..	8,043,858	7,603,878	6,425,008	4,642,553
1908..	3,765,343	3,313,876	3,421,977	3,603,527
1909..	3,542,590	4,057,939	4,796,833	5,927,031
1910..	5,402,514	4,257,794	3,158,106	2,674,757

At end of month:

	1911.	1912.	1913.
January ..	3,110.919	5,379,721	7,827,368
February .	3,400,543	5,454,200	7,656,714
March ...	3,447,301	5,304,841	7,468,956
April	3,218,704	5,664,885	6,978,762
May	3,113,187	5,750,983	6,324,322
June	3,361,058	5,807,346	5,807,317
July	3,695,985	5,957,079	5,399,356
August ..	3,584,085	6,163,375	5,223,468
September	3,611,317	6,551,507	5,003,785
October ..	3,694,328	7,594,381	4,513,767
November.	4,141,955	7,852,883	4,396,347
December .	5,084,761	7,932,164	4,282,108

The more important turning points above are indicated by bold face type.

U. S. STEEL CORPORATION.

Changes in unfilled tonnage in 1913, as compared with 1912, with shipments and bookings estimated in percentage of capacity.

1913—	Shipments. %	Bookings. %	Difference. %	Difference. Tons.
Jan.	98	89	— 9	—104,796
Feb.	98	82	—16	—170,654
Mar.	93	77	—16	—187,758
April	93	51	—42	—490,194
May	95	41	—54	—654,440
June	93	47	—46	—517,005
July	90	55	—35	—407,961
Aug.	90	75	—15	—175,888
Sept.	92	74	—18	—219,683
Oct.	87	47	—40	—490.018
Nov.	70	59	—11	—117,420
Dec.	50	40	—10	—114,239
Average .	87	61	—26	—304,171
1912—				
Jan.	70	95	+25	+294,960
Feb.	78	85	+ 7	+ 74,479
Mar.	85	68	—17	—149,359
April	92	124	+32	+360,044
May	93	101	+ 8	+ 86,098
June	94	99	+ 5	+ 56,363
July	82	95	+13	+149,733
Aug.	92	110	+18	+206,296
Sept.	98	135	+27	+388,132
Oct.	98	187	+89	+1,042,874
Nov.	96	120	+24	+258,512
Dec.	97	104	+ 7	+ 79,281
Average .	90	110	+20	+237,284

U. S. STEEL CORPORATION.

Monthly and quarterly earnings:

	1911.	1912.	1913.
January.	5,869,416	5,243,406	11,342,533
February	7,180,928	5,427,320	10,830,051
March ..	10,468,859	7,156,247	12,254,217
Quarter	23,519,203	17,826,973	34,426,801
April ...	9,412,573	7,509,207	13,072,710
May	9,590,444	8,846,821	14,554,566
June	9,105,503	8,746,237	13,592,537
Quarter	28,108,520	25,102,266	41,219,813
July	8,750,467	9,322,142	12,936,658
August ..	10,710,145	10,583,377	12,657,430
September	10,062,113	10,157,993	12,856,312
Quarter	29,522,725	30,063,512	38,450,400
October..	9,159,339	12,485,412	*11,000,000
November	6,946,717	11,120,749	*9,000,000
December	7,048,962	11,575,761	*6,000,000
Quarter	23,155,018	35,181,922	*26,000,000
Year..	104,305,466	108,174,673	*140,000,000

* Estimated.

STOCK PRICES.

	Preferred		Common	
	Low.	High.	Low.	High.
1901	69	101⅞	24	55
1902	79	97⅜	29⅜	46¼
1903	49⅜	89⅜	10	39⅝
1904	51¼	95⅛	8⅜	33⅛
1905	91	107	24¼	39⅜
1906	98⅜	113¼	32⅜	50¼
1907	79⅛	107⅜	21⅞	50⅜
1908	87⅛	114⅝	25⅜	58⅜
1909	107	131	41¼	94⅞
1910	110⅛	125⅜	61⅛	91⅛
1911	103	121⅞	50	82⅛
1912	107¼	117	58¼	80⅜
1913	102⅛	110⅜	49⅞	69¼

"Follansbee"

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whether in

Charcoal Bright or Roofing Tinplate

or

Sheet Steel

Our Manufacture Includes

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(Get Our Blue Prints and Data)

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AND
FOLLANSBEE BLUE
Uniform Color, Highly Finished Sheets.

ALSO

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Deep Stamping, Drawing and Spinning Qualities a Specialty

Follansbee Brothers Co.

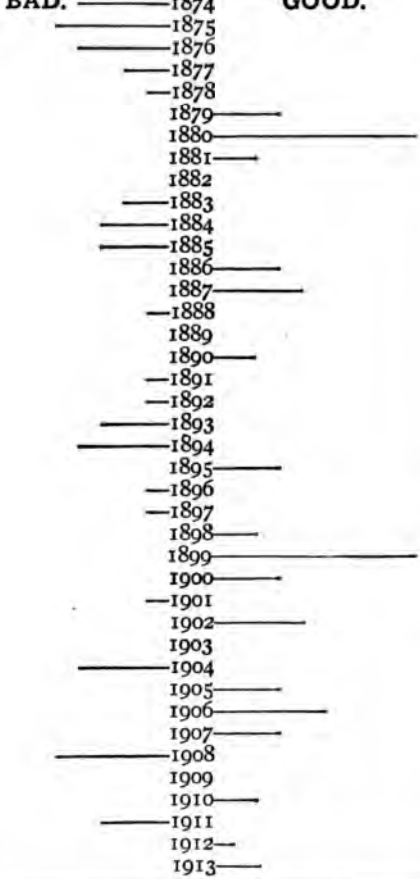
PITTSBURGH

ONLY AMERICAN MAKERS

HAMMERED OPEN HEARTH ROOFING TIN BEST FOR WEAR

GOOD AND BAD YEARS IN IRON.

Computed for each year by comparing production and price with average of two preceding years, allowing for normal rate of gain.



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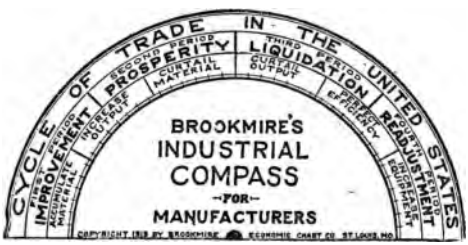

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STEAM RAILROAD STATISTICS.

Poor's Manual; fiscal years, except miles of road is at end of calendar year:

	Road.	Track.	Locomotives.	All cars.	Ton-mileage.
1885	128,320	160,506	25,662	828,058	49,151,894,469
1890	166,703	208,152	31,812	1,090,869	79,192,985,125
1895	181,115	235,031	36,610	1,265,108	88,567,770,801
1900	194,262	257,853	38,065	1,385,253	141,162,109,413
1905	217,341	299,912	49,616	1,798,434	187,375,621,537
1910	243,107	349,870	63,030	2,348,778	256,682,126,657
1911	246,573	359,030	65,310	2,408,589	258,599,943,687

Interstate Commerce Commission, Fiscal Year 1911:

Miles of track:		Equipment:			
First	246,238	Locomotives	61,327	Funded debt	$10,738,217,470
Second ..	23,451	Freight cars. No.	2,195,511	Stock	$8,470,717,611
Third ...	2,414	Av. capacity, tons	37	Passenger miles	33,201,694,699
Fourth ..	1,747	Company cars ..	114,006	Pass. tr. car miles	3,136,774,476
Yard, etc.	88,974	Passenger train cars	49,818	Freight ton miles	253,783,701,839
Total ..	362,824	Total cars	2,359,335	Freight car miles	19,315,156,130
				Locomotive miles	1,655,927,702

THE

REEVES

MANUFACTURING COMPANY

CANAL DOVER, OHIO

MANUFACTURERS OF

Black and Galvanized Sheets

Roofing and Siding

METAL SHINGLES, CONDUCTOR PIPE, EAVES TROUGH, STOVE PIPE AND ELBOWS. . . . . .

Charcoal Iron Blooms
Sheet Bars and Skelp

IRON AND STEEL DUTIES.

The tariff approved October 3, 1913, effective October 4th:

FREE.

Iron ore	Iron blooms, slabs, etc. (not muck bar)
Manganese ore	Steel slabs, billets, etc. (not alloyed)
Iron scrap	Rails
Steel scrap	Nails and spikes
Pig iron	Cotton ties
Spiegeleisen	
Ferromanganese	

DUTIABLE.

Ferro-chrome, phosphorus, titanium, tungsten, vanadium	15 per cent
Muck bar	5 per cent
Steel ingots, crucible, electric, etc.	15 per cent
Steel ingots, alloyed	15 per cent
Wire rods	8 per cent
Skelp	12 per cent
Splice bars	10 per cent
Shapes	10 per cent
Plates	12 per cent
Iron bars	5 per cent
Steel bars	8 per cent
Hoops	10 per cent
Welded pipe	20 per cent
Seamless tubes	30 per cent
Black sheets	12 per cent
Galvanized sheets	15 per cent
Tin plate	15 per cent
Enameled ware	25 per cent
Iron castings	10 per cent
Cast iron pipe	10 per cent
Machine tools	15 per cent
Sprocket and machine chains	25 per cent
Other chain	20 per cent
Anti-friction balls, bearings, etc.	35 per cent
Automobiles under $2,000	30 per cent
Automobiles over $2,000	45 per cent
Bicycles	25 per cent
Guns, muzzle loading shot	15 per cent
Other guns	35 per cent
Anvils	15 per cent

Miscellaneous Free.—Coal and coke, agricultural implements, wire fence, cash registers, typewriters, typesetting machines, sewing machines, shoe machinery, road machinery.

Established 1812.

Bruce & Cook

186-188-190 WATER STREET
248-250 PEARL STREET

NEW YORK

Pig Tin
Pig Lead
Ingot Copper
Spelter Antimony
Aluminum

Tin Plate, Sheet Iron, Solder,
Babbitt Metals, Sheet Copper
Sheet Brass

METAL DUTIES.

A partial list of metal duties according to the Customs Tariff Act of 1913:

ALUMINUM.	
Aluminum alloys, crude and scrap	2c per lb.
Plates, sheets, bars and rods	3½c per lb.
Articles or wares	20 per cent
ANTIMONY.	
Ore	Free
Matte, containing not more than 10 per cent lead	10 per cent
Metal and regulus	10 per cent
Antimonial type metal	25 per cent
BISMUTH.	
Bismuth	Free
COPPER.	
Ores, matte, bars, ingots, pigs, regulus, plates, scrap and composition with copper chief value	Free
Bottoms, braziers, sheets, pipes, sheathing or yellow metal and rods	5 per cent
Nails	20 per cent
Plain wire	15 per cent
LEAD.	
Ores, on lead contained	¾c per lb.
In bars, pigs, granules, bullion, alloys in pigs, dross, hard metal, old tea lead, old scrap lead and old refuse, on lead therein	25 per cent
Pipe, sheets, shot and wire, on lead therein	25 per cent
White, dry or in pulp or ground or mixed with oil, or red	25 per cent
NICKEL.	
In ore, matte or other crude form	Free
Alloys, pigs, plates, ingots, bars, oxide	10 per cent
Sheets and strips	20 per cent
SPELTER.	
Slabs, blocks or pigs and old, fit only for remanufacture	15 per cent
ZINC.	
Zinc bearing ores including calamine, on the zinc contained	15 per cent
Zinc dust, sheets not polished, or plated	15 per cent
Oxide	10 per cent
QUICKSILVER	10 per cent
PLATINUM.	
Ingots, bars, plates, retorts, wire, and scrap	Free
TIN.	
Ore, bars, blocks, pigs, oxide and cassiterite or black and dross	Free

Established 1875

United States Smelting Works

1615 and 1617 Spring Garden St.
PHILADELPHIA, PA.

Tin, Copper, Spelter, Lead and Antimony
Babbitt Metals, Solders, Etc.
Brazing Solder

"GILBERT"

In the Western country, the sterling mark on castings, ingots and finished specialties in brass, bronze, copper, aluminum. A recognized guarantee of quality on babbitt and anti-friction metals

A. GILBERT & SONS BRASS FOUNDRY CO.,
St. Louis, Mo.

DAILY PRICES OF METALS IN 1913.

	Copper. New York. Lake.	Copper. New York. Electro.	Tin, New York.	Lead, St. Louis.	Spelter, St. Louis.
January.					
2	17.70	17.60	50.65	4.17½	7.16¼
3	17.70	17.60	50.65	4.18¾	7.17½
6	17.70	17.60	50.50	4.21¼	7.12½
7	17.70	17.60	50.35	4.22½	7.17½
8	17.60	17.50	50.55	4.22½	7.17½
9	17.50	17.37½	50.40	4.22½	7.17½
10	17.37½	17.25	50.25	4.20	7.17½
13	17.25	17.00	50.20	4.20	7.17½
14	16.87½	16.62½	51.00	4.20	7.17½
15	16.87½	16.62½	51.00	4.17½	7.15
16	16.75	16.50	50.90	4.17½	7.15
17	16.75	16.50	50.80	4.17½	7.15
20	16.31¼	16.06¼	50.60	4.17½	7.10
21	16.25	16.00	50.20	4.17½	7.10
22	16.50	16.25	50.55	4.17½	7.05
23	16.62½	16.50	50.10	4.17½	7.00
24	16.37½	16.31¼	50.00	4.20	6.90
27	16.37½	16.30	49.90	4.20	6.90
28	16.37½	16.30	50.00	4.22½	6.72½
29	16.37½	16.37½	50.87½	4.22½	6.70
30	16.37½	16.37½	50.25	4.22½	6.75
31	16.31¼	16.37½	50.25	4.20	6.60
February.					
3	16.25	16.25	49.45	4.20	6.60
4	16.12½	16.00	49.25	4.20	6.60
5	16.00	15.87½	48.75	4.20	6.50
6	15.87½	15.75	48.45	4.20	6.37½
7	15.87½	15.75	49.50	4.20	6.35
10	15.87½	15.75	49.65	4.20	6.25
11	15.81¼	15.62½	49.35	4.20	6.25
13	15.81¼	15.68¾	49.00	4.20	6.22½
14	15.50	15.12½	48.75	4.20	6.22½
17	15.12½	15.00	49.00	4.20	6.20
18	15.06¼	14.87½	48.75	4.20	6.25
19	14.93¾	14.87½	49.20	4.20	6.20
20	14.87½	14.87½	48.65	4.20	6.12½
21	14.93¾	14.87½	48.75	4.20	6.12½
24	14.93¾	14.87½	47.90	4.20	6.10

DAILY PRICES OF METALS IN 1913.

	Copper.		Tin,	Lead,	Spelter,
	New York.		New	St.	St.
	Lake.	Electro.	York.	Louis.	Louis.
February.					
25	14.80	14.75	47.90	4.20	6.10
26	14.80	14.75	48.05	4.20	6.07½
27	14.75	14.72½	47.75	4.20	6.07½
28	14.81¼	14.80	47.75	4.20	6.07½
March.					
3	14.93¾	14.90	47.85	4.20	6.12½
4	14.93¾	14.90	47.95	4.21¼	6.15
5	14.93¾	14.90	48.40	4.21¼	6.15
6	14.95	14.95	47.75	4.21¼	6.22½
7	14.95	14.90	47.30	4.21¼	6.25
10	14.95	14.87½	46.40	4.21¼	6.25
11	14.95	14.90	46.50	4.21¼	6.25
12	14.95	14.90	46.45	4.21¼	6.25
13	14.95	14.90	45.87½	4.21¼	6.22½
14	14.95	14.85	45.95	4.21¼	6.20
17	14.90	14.85	45.75	4.21¼	6.15
18	14.90	14.90	46.10	4.21¼	6.10
19	14.90	14.85	46.12½	4.21¼	6.07½
20	14.90	14.85	46.25	4.20	6.00
24	14.90	14.90	46.20	4.20	5.95
25	14.90	14.90	46.55	4.20	5.92½
26	15.05	15.00	47.00	4.21¼	5.92½
27	15.06¼	15.05	48.00	4.20	5.77½
28	15.06¼	15.05	47.25	4.20	5.80
31	15.17½	15.17½	48.00	4.20	5.80
April.					
1	15.17½	15.15	48.00	4.20	5.82½
2	15.20	15.20	48.00	4.18¾	5.77½
3	15.32½	15.27½	47.62½	4.18¾	5.72½
4	15.40	15.35	47.62½	4.18¾	5.75
7	15.40	15.32½	48.25	4.20	5.77½
8	15.50	15.40	48.15	4.20	5.75
9	15.50	15.40	48.50	4.17½	5.70
10	15.50	15.40	48.75	4.17½	5.67½
11	15.56¼	15.45	49.15	4.20	5.65
14	15.68¾	15.60	50.12½	4.21¼	5.62½
15	15.65	15.60	49.70	4.21¼	5.60

DAILY PRICES OF METALS IN 1918.

	Copper. New York. Lake.	Copper. New York. Electro.	Tin, New York.	Lead, St. Louis.	Spelter, St. Louis.
April					
16	15.55	15.50	49.75	4.22½	5.60
17	15.70	15.67½	50.20	4.22½	5.55
18	15.70	15.65	50.15	4.23¾	5.50
21	15.67½	15.60	49.60	4.22½	5.42½
22	15.67½	15.60	49.55	4.35	5.45
23	15.67½	15.60	49.55	4.36¼	5.45
24	15.65	15.55	49.10	4.36¼	5.42½
25	15.65	15.60	49.75	4.37½	5.45
28	15.65	15.60	49.60	4.37½	5.45
29	15.65	15.50	49.80	4.37½	5.42½
30	15.62½	15.45	49.80	4.37½	5.40
May.					
1	15.62½	15.45	50.00	4.37½	5.40
2	15.65	15.55	49.65	4.36¼	5.40
5	15.70	15.60	49.90	4.22½	5.40
6	15.72½	15.62½	50.25	4.22½	5.37½
7	15.72½	15.62½	50.70	4.22½	5.37½
8	15.75	15.65	50.37½	4.22½	5.37½
9	15.75	15.65	50.25	4.22½	5.35
12	15.81¼	15.75	50.12½	4.22½	5.35
13	15.85	15.80	50.00	4.22½	5.35
14	15.75	15.75	49.10	4.22½	5.32½
15	15.65	15.65	48.12½	4.22½	5.30
16	15.75	15.65	48.87½	4.20	5.30
19	15.75	15.60	48.25	4.18¾	5.30
20	15.75	15.60	48.00	4.18¾	5.30
21	15.75	15.65	48.40	4.18¾	5.27½
22	15.75	15.65	48.75	4.18¾	5.25
23	15.70	15.60	48.50	4.18¾	5.25
26	15.70	15.60	48.50	4.21¼	5.25
27	15.70	15.60	48.87½	4.20	5.22½
28	15.65	15.57½	48.15	4.20	5.22½
29	15.65	15.57½	47.25	4.20	5.20
June.					
2	15.50	15.30	46.70	4.20	5.15
3	15.50	15.25	46.60	4.21¼	5.15
4	15.40	15.15	46.00	4.20	5.15
5	15.31¼	15.05	45.60	4.20	5.10

DAILY PRICES OF METALS IN 1913.

	Copper. New York. Lake.	Copper. New York. Electro.	Tin, New York.	Lead, St. Louis.	Spelter, St. Louis.
June.					
6	15.31½	15.05	46.25	4.20	5.10
9	15.31½	15.05	45.50	4.20	5.10
10	15.12½	14.87½	45.25	4.20	5.02½
11	15.12½	14.87½	45.25	4.20	5.02½
12	15.12½	14.87½	45.75	4.20	5.00
13	15.12½	14.93¾	45.95	4.20	5.00
16	15.06¼	14.93¾	45.50	4.20	5.00
17	15.00	14.85	44.75	4.20	4.97½
18	15.00	14.85	45.00	4.20	4.97½
19	15.00	14.85	45.15	4.18¾	5.00
20	14.87½	14.62½	43.60	4.25	5.00
23	14.75	14.50	42.75	4.22½	5.00
24	14.75	14.50	43.75	4.22½	5.00
25	14.87½	14.62½	44.75	4.22½	5.02½
26	14.87½	14.62½	43.75	4.22½	5.05
27	14.87½	14.56¼	42.85	4.22½	5.12½
30	14.87½	14.56¼	42.75	4.22½	5.15
July.					
1	14.85	14.56¼	41.65	4.22½	5.15
2	14.85	14.56¼	41.30	4.22½	5.15
3	14.85	14.56¼	40.75	4.22½	5.17½
7	14.85	14.56¼	40.50	4.22½	5.22½
8	14.80	14.55	39.45	4.22½	5.25
9	14.80	14.55	39.12½	4.22½	5.22½
10	14.62½	14.37½	39.62½	4.20	5.20
11	14.62½	14.37½	40.85	4.20	5.20
14	14.56¼	14.30	39.45	4.20	5.15
15	14.50	14.20	40.00	4.20	5.15
16	14.50	14.20	39.87½	4.20	5.15
17	14.60	14.43¾	39.80	4.22½	5.15
18	14.52½	14.43¾	40.00	4.22½	5.15
21	14.52½	14.43¾	40.50	4.22½	5.20
22	14.55	14.50	41.30	4.22½	5.22½
23	14.60	14.50	41.55	4.22½	5.22½
24	14.75	14.62½	40.90	4.22½	5.25
25	15.00	14.87½	40.35	4.23¾	5.25
28	15.20	15.06¼	40.80	4.27½	5.32½
29	15.05	14.93¾	41.00	4.42½	5.45

DAILY PRICES OF METALS IN 1913.

	Copper. New York. Lake.	Electro.	Tin, New York.	Lead, St. Louis.	Spelter, St. Louis.
July.					
30	15.05	14.93⅝	39.50	4.42½	5.42½
31	15.25	15.06¼	40.25	4.40	5.45
August.					
1	15.25	15.12½	40.70	4.41¼	5.47½
4	15.25	15.12½	40.70	4.37½	5.45
5	15.31¼	15.18⅝	40.90	4.42½	5.47½
6	15.43⅝	15.37½	41.85	4.42½	5.47½
7	15.43⅝	15.43⅝	41.60	4.42½	5.52½
8	15.75	15.75	41.70	4.42½	5.52½
11	15.81¼	15.75	42.25	4.42½	5.52½
12	15.81¼	15.75	41.80	4.42½	5.60
13	15.87½	15.80	41.62½	4.42½	5.60
14	15.93⅝	15.80	41.85	4.43⅝	5.62½
15	16.00	15.85	41.50	4.60	5.65
18	16.00	15.90	41.50	4.65	5.72½
19	15.90	15.80	41.37½	4.67½	5.70
20	15.90	15.80	41.60	4.67½	5.65
21	15.85	15.70	41.45	4.72½	5.75
22	15.80	15.65	41.30	4.70	5.75
25	15.90	15.75	41.37½	4.70	5.75
26	16.00	15.87½	42.00	4.72½	5.80
27	16.00	15.87½	42.60	4.72½	5.80
28	16.18⅝	16.00	43.60	4.72½	5.80
29	16.18⅝	16.00	42.90	4.72½	5.80
September.					
2	16.25	16.18¼	43.12½	4.68⅝	5.73⅝
3	16.43⅝	16.30	43.70	4.68⅝	5.72½
4	16.43⅝	16.30	43.87½	4.68⅝	5.72½
5	16.68⅝	16.43⅝	43.25	4.67½	5.75
8	16.87½	16.70	42.87½	4.67½	5.75
9	16.81¼	16.65	42.75	4.67½	5.75
10	16.75	16.56¼	42.50	4.65	5.75
11	16.62½	16.43⅝	42.45	4.63⅝	5.72½
12	16.62½	16.43⅝	42.40	4.63⅝	5.72½
15	16.81¼	16.68⅝	43.00	4.62½	5.72½
16	16.87½	16.81¼	42.90	4.61¼	5.65
17	16.87½	16.81¼	42.55	4.61¼	5.65
18	16.87½	16.81¼	42.10	4.61¼	5.62½

DAILY PRICES OF METALS IN 1913.

	Copper.		Tin,	Lead,	Spelter,
	New York.		New	St.	St.
	Lake.	Electro.	York.	Louis.	Louis.
September.					
19	16.87½	16.81¼	42.20	4.62½	5.62½
22	16.75	16.56¼	41.85	4.60	5.62½
23	16.81¼	16.68¾	41.85	4.60	5.62½
24	16.75	16.50	42.00	4.60	5.57½
25	16.75	16.50	42.15	4.57½	5.55
26	16.75	16.50	41.70	4.52½	5.52½
29	16.75	16.50	41.60	4.50	5.47½
30	16.75	16.43¾	41.12½	4.50	5.45
October.					
1	16.75	16.55	41.12½	4.50	5.42½
2	16.81¼	16.55	41.20	4.45	5.42½
3	16.81¼	16.50	40.95	4.45	5.40
6	16.81¼	16.55	40.55	4.45	5.37½
7	16.81¼	16.55	40.55	4.42½	5.32½
8	16.81¼	16.55	40.75	4.42½	5.32½
9	16.75	16.45	40.60	4.36¼	5.25
10	16.62½	16.31¼	40.30	4.35	5.25
14	16.50	16.20	40.35	4.32½	5.20
15	16.62½	16.31¼	40.45	4.30	5.17½
16	16.68¾	16.43¾	40.87½	4.28¾	5.17½
17	16.68¾	16.43¾	40.62½	4.25	5.17½
20	16.75	16.55	40.30	4.22½	5.20
21	16.81¼	16.60	40.20	4.22½	5.22½
22	16.93¾	16.72½	40.60	4.22½	5.25
23	16.93¾	16.68¾	40.55	4.22½	5.30
24	16.93¾	16.68¾	40.55	4.22½	5.30
27	16.93¾	16.68¾	40.35	4.22½	5.25
28	16.93¾	16.68¾	40.00	4.22½	5.25
29	16.93¾	16.68¾	40.05	4.22½	5.25
30	16.93¾	16.62½	39.95	4.22½	5.23¾
31	16.93¾	16.56¼	40.15	4.22½	5.22½
November					
3	16.87½	16.37½	39.90	4.22½	5.22½
5	16.87½	16.37½	40.25	4.22½	5.22½
6	16.62½	16.25	40.00	4.22½	5.20
7	16.62½	16.25	40.00	4.22½	5.20
10	16.12½	15.75	39.40	4.22½	5.15
11	16.12½	15.75	39.35	4.22½	5.15

DAILY PRICES OF METALS IN 1913.

	Lake. New York. Copper.	Electro. New York. Copper.	York. New Tin,	Louis. St. Lead,	Louis. St. Spelter,
12	16.12½	15.68¾	39.55	4.22½	5.15
13	nom.	15.43¾	40 05	4.22½	5.15
14	nom.	15.43¾	40.05	4.22½	5.15
17	nom.	15.31¼	39.87½	4.15	5.13¾
18	nom.	15.31¼	40.25	4.15	5.13¾
19	15.75	15.31¼	40.15	4.15	5.12½
20	15.62½	15.18¾	39.85	4.15	5.12½
21	15.25	14.87½	39.80	4.13¾	5.12½
24	15.12½	14.75	39.37½	4.13¾	5.12½
25	15.18¾	14.81¼	39.35	4.13¾	5.11¼
26	15.18¾	14.87½	39.75	4.10	5.07½
28	15.12½	14.75	39.60	4.10	5.07½
December.					
1	15.00	14.68¾	39.12½	4.10	5.07½
2	15.00	14.62½	38.70	3.97½	5.02½
3	15.00	14.62½	38.80	3.97½	5.00
4	15.00	14.62½	38.15	3.97½	5.00
5	14.87½	14.50	38.25	3.97½	5.00
8	14.62½	14.37½	37.70	3.97½	5.00
9	14.62½	14.37½	37.40	3.87½	5.00
10	14.62½	14.37½	37.50	3.85	5.00
11	14.62½	14.37½	37.62½	3.85	5.00
12	14.62½	14.31¼	37.55	3.85	5.00
15	14.62½	14.31¼	37.70	3.85	5.00
16	14.62½	14.31¼	37.87½	3.85	5.00
17	14.62½	14.31¼	37.55	3.85	5.00
18	14.62½	14.31¼	37.35	3.87½	5.02½
19	14.62½	14.25	37.15	3.87½	5.02½
22	14.62½	14.25	36.90	3.90	5.02½
23	14.62½	14.25	36.75	3.90	5.00
24	14.62½	14.31¼	36.85	3.97½	5.00
26	15.00	14.56½	37.00	3.97½	5.07½
29	15.37½	14.87½	37.70	4.02½	5.07½
30	15.37½	14.87½	37.37½	4.05	5.15
31	15.37½	14.81¼	37.10	4.10	5.12½
High ..	17.75	17.65	51.00	4.72½	7.17½
Low ...	14.50	14.12½	36.75	3.85	4.95
Average	15.70	15.52	44.32	4.26	5.61

COMPOSITE METAL PRICE.

The composite metal price is a convention devised by the "American Metal Market" to show at one glance the bulk movement of metal prices, the metals being weighted according to their tonnage importance. The composite metal price is thus computed (for January 2, 1914):

Pounds.	Metal.	Price.	Extension.
4	Lead (St. Louis)	4.07½	16.300
2½	Spelter (St. Louis)	5.12½	12.812
3	Electro. Copper, N.Y.	14.75	44.250
½	Tin, (New York)	36.80	18.400
10 pounds			91.762
One pound			9.1762

Yearly averages:

1890	8.975	1902	7.691
1891	7.870	1903	8.480
1892	7.273	1904	8.289
1893	6.714	1905	9.707
1894	5.934	1906	11.734
1895	6.112	1907	11.755
1896	6.116	1908	8.290
1897	6.532	1909	8.444
1898	7.039	1910	8.665
1899	9.910	1911	9.043
1900	9.247	1912	10.750
1901	8.931	1913	10.021

Note—Prior to 1900 the yearly averages are figured on the New York prices of lead and spelter, instead of the St. Louis prices, and on the price of Lake copper instead of electrolytic.

COMPOSITE METAL PRICES.

Monthly averages:

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	8.190	9.371	11.522	13.806	8.126	8.521	9.084	8.908	9.778	10.987
February ...	8.030	9.305	11.032	13.916	8.071	8.142	8.881	8.915	9.677	10.260
March	8.168	9.332	11.040	13.925	8.040	7.921	8.778	8.797	9.886	10.024
April	8.389	9.329	11.197	13.618	8.150	8.121	8.568	8.795	10.277	10.198
May	8.284	9.138	11.622	13.630	8.125	8.298	8.413	8.795	10.468	10.163
June	7.915	9.083	11.466	13.167	8.128	8.506	8.362	9.154	11.014	9.648
July	7.971	9.250	11.185	12.263	8.147	8.365	8.338	9.100	11.043	9.398
August	7.978	9.742	11.359	11.232	8.515	8.522	8.479	9.188	11.092	10.025
September .	8.116	9.961	11.688	9.903	8.435	8.520	8.569	8.928	11.575	10.350
October ...	8.332	10.146	12.682	8.923	8.388	8.592	8.747	8.990	11.596	10.029
November .	8.897	10.431	12.846	8.685	8,743	8,787	8,888	9,306	11,372	9,590
December ..	9.225	11.454	13.188	7.994	8.619	9.036	8.881	9.675	11.219	9.053
Average ..	8.289	9.707	11.734	11.755	8.290	8.444	8.665	9.046	10.750	9.977

METAL BROKERS

M. E. APPELBAUM, Inc.

55 Liberty St., New York

¶ The Largest Copper Brokerage Business in the United States.

We do not write any contracts of any nature, for our own account.

TOTAL PRODUCTION OF COPPER.

Total production of copper in the world 1800 to 1912 inclusive, arranged in decades from figures issued by Vivian, Younger & Bond, Henry R. Merton & Co., Ltd., and the United States Geological Survey, in tons of 2,240 pounds:

	United States Production.	World's Total Production.
1801-1810.....	.....	91,000
1811-1820.....	.....	96,000
1821-1830.....	.....	135,000
1831-1840.....	.....	218,400
1841-1850.....	2,400	291,000
1851-1860.....	37,050	505,999
1861-1870.....	97,100	900,000
1871-1880.....	188,000	1,189,400
1881-1890.....	732,500	2,221,236
1891-1900.....	1,941,390	3,710,651
1901-1910.....	3,822,960	6,856,630
1911-1912.....	1,044,800	1,877,800
Total	7,866,200	18,093,116

WORLD'S PRODUCTION OF COPPER.

According to H. R. Merton & Co., and U. S. Geological Survey, tons 2,240 lbs.)

Year.	Tons.	Year.	Tons.
1881	163,000	1897	405,831
1882	181,622	1898	429,379
1883	199,406	1899	463,693
1884	220,249	1900	486,999
1885	225,592	1901	517,865
1886	217,086	1902	548,604
1887	223,798	1903	586,143
1888	258,026	1904	649,300
1889	259,837	1905	701,252
1890	272,620	1906	712,934
1891	282,713	1907	709,736
1892	314,509	1908	744,240
1893	304,943	1909	836,870
1894	315,619	1910	849,686
1895	329,431	1911	872,748
1896	377,534	1912	1,005,050

Magnus Metal

STANDARD

For Journal Bearings and Locomotive Wearing Parts.

Magnus Metal Company,

No. 111 BROADWAY, NEW YORK.

H. H. HEWITT. Pres. C. M. HEWITT, V.P.

U. S. COPPER PRODUCTION.

(Smelter and Mine Production.)

1840-9	3,920,000	1890	259,763,092*
1850-9	68,320,000	1891	284,121,764*
		1892	344,998,679*
1860	16,128,000*	1893	329,354,398
1861	16,800,000*	1894	354,188,374*
1862	21,160,000*	1895	380,613,404*
1863	19,040,000	1896	460,061,430*
1864	17,920,000	1897	494,078,274*
1865	19,040,000	1898	526,512,987*
1866	19,936,000	1899	568,666,921*
1867	22,400,000*		
1868	25,984,000*	1890-9	4,002,359,323
1869	28,000,000		
		1900	606,117,166*
1860-9	206,408,000	1901	602,072,519
		1902	659,508,644*
1870	28,224,000*	1903	698,044,517*
1871	29,120,000*	1904	812,537,267*
1872	28,000,000	1905	888,784,267*
1873	34,720,000*	1906	917,805,682*
1874	39,200,000*	1907	868,996,491
1875	40,320,000*	1908	942,570,721*
1876	42,560,000*	1909	1,092,951,624*
1877	47,040,000*		
1878	48,160,000*	1900-9	8,089,388,898
1879	51,520,000*		
		1910	1,080,159,509
1870-9	388,864,000	1911	1,097,232,749*
		1912	1,243,268,720*
1880	60,480,000*	1913	1,223,700,000
1881	71,680,000*		
1882	90,646,232*		
1883	115,526,053*	* Record years.	
1884	144,946,653*		
1885	165,875,766*		
1886	156,735,381		
1887	180,920,524*		
1888	226,361,466*		
1889	226,775,962*		
1880-9	1,439,948,037		

The American Metal Co.
Ltd.

52 Broadway, NEW YORK

1411 Third National Bank Bldg.
ST. LOUIS

420 Empire Bldg.
DENVER

Ores and Mattes
Copper and Lead Bullion
Standard Aluminum

Ferromanganese and Spiegeleisen
Iron and Manganese Ores

BALBACH

Smelting and Refining Company

Smelters and Refiners of Gold, Silver, Lead and Copper Material
Electrolytic Copper Refinery

NEWARK, NEW JERSEY

U. S. COPPER PRODUCTION.

(Smelter and Mine Production.)

Year.	Production. Pounds.	Annual Increase. Pounds.	%
1880	60,480,000	8,960,000	17.4
1881	71,680,000	11,200,000	18.5
1882	90,646,232	8,966,232	12.5
1883	115,526,053	24,886,221	27.4
1884	144,946,653	29,420,600	25.5
1885	165,875,766	20,929,113	14.4
1886	156,735,381	*9,140,385	*5.5
1887	180,920,524	24,185,143	15.4
1888	226,361,466	45,440,942	25.0
1889	226,775,962	414,496	.2
1890	259,763,092	32,987,130	14.5
1891	284,121,764	24,358,672	9.4
1892	344,998,679	60,876,915	21.4
1893	329,354,398	*15,644,281	*4.5
1894	354,188,374	24,833,976	7.5
1895	380,613,404	26,425,030	7.4
1896	460,061,430	79,448,026	20.0
1897	494,078,274	34,016,844	7.4
1898	526,512,987	32,434,713	6.6
1899	568,666,921	42,153,934	8.0
1900	606,117,166	37,450,245	6.6
1901	602,072,519	*4,044,647	*.7
1902	659,508,644	57,436,125	9.5
1903	698,044,517	38,535,873	5.8
1904	812,537,267	114,492,750	16.4
1905	888,784,267	76,247,000	11.0
1906	917,805,682	15,897,839	1.7
1907	868,996,491	*48,809,191	*5.3
1908	942,570,721	73,074,230	8.4
1909	1,092,951,624	150,380,903	15.9
1910	1,080,159,509	*12,792,115	*1.2
1911	1,097,232,749	17,073,240	1.6
1912	1,243,268,720	146,035,971	13.3
1913	1,223,700,000	*19,568,720	*1.5

* Decrease.

NASSAU SMELTING
AND
REFINING WORKS

DEALERS IN Copper, Spelter, Lead, Tin, Aluminum, Nickel, Antimony, Bismuth, etc.

MANUFACTURERS OF Ingot Brass and Bronze, Manganese Bronze, Phosphor Tin and Copper, Solder, Babbitt and Type Metals.

SMELTERS OF Drosses.

603 to 625 West 29th St.
NEW YORK

Tottenville Copper Co.
Tottenville, N. Y.

INGOT COPPER
99½ per cent pure

BRAND

C. T. C.

PRODUCTION OF COPPER IN THE UNITED STATES—BY STATES.

(Short tons):	1885.	1890.	1895.	1900.	1905.	1910.	1911.	1912.	1913
Alaska	.....	.....	.....	.....	2,450	2,156	11,157	15,963	10,000
Arizona	11,353	17,398	23,977	59,159	113,427	148,625	151,601	179,661	200,000
California	235	12	109	14,256	8,349	22,880	17,918	15,758	17,000
Colorado	573	1,793	3,040	3,913	4,702	4,654	4,896	3,982	5,000
Idaho	20	44	713	145	3,661	3,439	2,257	3,591	5,000
Michigan	36,074	50,705	64,665	72,731	115,144	110,731	109,093	115,556	76,000
Montana	33,899	56,490	95,086	135,369	157,375	141,539	135,907	154,386	140,000
New Mexico	40	425	72	2,085	2,667	1,892	1,430	14,585	28,000
Nevada	4	.....	.....	204	207	32,247	32,780	41,707	41,000
Oregon	.....	.....	.....	.....	423	11	63	156	.....
South Dakota	.....	.....	.....	8	.....	.....	1	11	.....
Utah	63	503	1,092	9,177	27,042	62,593	71,170	66,075	80,000
Washington	.....	.....	.....	.....	112	33	98	535	.....
Wyoming	.....	.....	.....	2,102	1,265	108	65	13	.....
Eastern, Southern and Middle States	221	189	1,553	2,410	7,567	9,171	10,180	9,655	10,000
Unapportioned and lead desilverization	455	2,322	.....	1,500	.....	.....	.....	.....	.....
Total	82,937	129,881	190,307	303,059	444,392	540,079	548,616	621,634	612,000

PRINCIPAL COPPER SUPPLIES.

The figures are those issued by Henry R. Merton & Co., London; in tons of 2,240 lbs.

	1885.	1890.	1895.	1900.	1905.	1909.	1910.	1911.	1912.
Africa—									
Cape Co.	5,000	5,000	5,350	4,420	5,025	4,645	4,405	4,480	3,870
Namaqua	450	1,450	1,730	2,300	2,300	2,300	2,500	2,500	2,500
Sundries	250	120	35	.....	415	8,000	8,300	10,000	10,000
Argentina	233	150	150	75	155	600	300	1,020	330
Australasia	11,400	7,500	10,000	23,020	33,940	34,400	40,315	41,840	47,020
Austria	585	1,210	1,110	865	1,175	1,615	2,130	2,440	3,860
Bolivia, Coro-Coro..	1,500	1,900	2,250	2,100	2,000	2,000	2,500	1,800	1,850
Canada	1,200	3,050	4,000	8,500	20,535	24,105	25,715	24,930	34,710
Chili	38,500	26,120	22,075	25,700	29,165	35,785	35,235	29,595	37,305
Cuba	.....	.....	.....	.....	.....	2,960	3,475	3,695	3,935
England	2,773	935	580	650	715	435	450	400	400
Germany—Mansfield	12,450	15,800	14,860	18,390	19,565	18,715	19,995	20,520	20,180
Other German..	2,800	1,825	1,695	2,020	2,595	3,740	4,715	1,490	3,740
Hungary, incl. Servia and Bosnia	600	300	200	490	150	4,600	4,955	6,970	7,340
Italy	2,000	2,200	2,500	2,955	2,950	2,725	3,220	2,600	2,300
Japan	10,000	15,000	18,430	27,840	35,910	47,000	46,000	55,000	65,500

PRINCIPAL COPPER SUPPLIES. (Continued).

	1885.	1890.	1895.	1900.	1905.	1909.	1910.	1911.	1912.
Mexico—Boleo	...	3,450	10,450	11,050	10,185	12,230	12,795	12,165	12,450
Other Mexican.	375	875	1,170	11,000	54,255	44,095	48,720	48,740	58,395
Newfoundland	778	1,735	1,800	1,900	2,280	1,380	1,080	1,155	540
Norway—Sulitelma.	.....	.....	.....	2,220	3,195	4,295	4,925	3,590	4,755
Other Norwegian	2,560	1,390	2,685	1,715	3,110	4,785	5,500	5,835	6,225
Peru	229	150	450	8,220	8,625	16,000	26,945	28,050	27,165
Russia	5,100	4,800	5,280	6,740	8,700	17,750	22,310	25,310	33,010
Sweden	775	830	515	450	550	2,000	2,000	2,000	1,500
Spain and Portugal—									
Rio Tinto	23,484	30,000	33,500	35,732	32,280	35,370	33,575	33,385	39,925
Tharsis	11,500	10,300	12,000	7,965	4,345	4,355	3,495	3,395	3,375
Mason & Barry .	7,000	5,600	4,100	3,460	2,720	2,365	2,955	2,920	3,540
Sevilla	1,800	810	1,050	1,460	1,280	1,820	1,630	1,530	1,390
Other mines ...	4,089	4,990	4,300	4,255	4,185	8,275	8,600	9,700	10,700
United States	74,052	116,325	172,300	263,502	389,120	490,280	484,935	483,865	554,835
Turkey	.....	.....	.....	520	700	800	600	1,000	500
Venezuela	4,111	5,640	.....	.....	.....	.....	.....	.....	1,340
Total	225,594	269,455	334,565	479,514	682,125	839,425	864,275	871,920	1,004,485

COPPER PRODUCERS' STATISTICS FOR 1913.

1913—	Domestic Stocks.	U. S. Production.	Domestic Deliveries.	Export Deliveries.	Total Deliveries.
January	123,198,332	143,479,625	65,210,030	60,383,845	125,593,875
February ...	122,302,198	130,948,881	59,676,492	72,168,523	131,845,015
March	104,269,270	136,251,849	76,585,471	77,699,306	154,284,777
April	75,549,108	135,333,402	78,158,837	85,894,727	164,053,564
May	67,474,225	141,319,416	81,108,321	68,285,978	149,394,299
June	52,904,606	121,860,853	68,452,571	68,067,901	136,520,472
July	53,594,945	138,074,602	58,904,192	78,480,071	137,384,263
August	38,314,037	131,632,362	73,649,801	73,263,469	146,913,270
September ..	29,793,094	131,401,229	66,836,897	73,085,275	139,922,172
October	32,566,382	139,070,481	68,173,720	68,123,473	136,297,193
November ..	47,929,429	134,087,708	48,656,858	70,067,803	118,724,661
December ..	91,438,867	138,990,421	21,938,570	73,542,413	95,480,983
Total		1,622,450,829	767,351,760	869,062,784	1,636,414,544
Monthly av..	69,944,541	135,204,235	63,945,980	72,421,898	136,367,878

PRODUCTION OF REFINED COPPER.

Monthly production of refined copper as reported by the Copper Producers' Association.

	1909.	1910.	1911.	1912.	1913.
January	112,135,200	116,547,287	115,696,591	119,337,753	143,479,625
February	103,700,817	112,712,493	109,828,297	116,035,809	130,948,881
March	117,058,661	120,067,467	130,532,080	125,694,601	136,251,849
April	113,574,292	117,477,639	118,085,223	125,464,644	135,333,402
May	118,356,146	123,242,476	126,962,544	126,737,836	141,319,416
June	116,567,493	127,219,188	124,554,312	122,315,240	121,850,853
July	118,277,603	118,370,003	112,167,934	137,161,129	138,074,602
August	120,597,234	127,803,618	125,493,667	145,628,521	131,632,362
September ...	118,023,139	119,519,983	115,588,950	140,089,819	131,401,229
Adjustment ...	3,007,738	.....	.....	.....	.....
October	124,657,709	126,469,284	118,255,442	145,405,453	139,070,481
November ...	121,618,369	119,353,463	111,876,601	134,695,440	134,087,708
December ...	117,828,655	123,339,219	122,896,697	143,354,042	138,990,421
Year	1,405,403,056	1,452,122,120	1,431,938,338	1,581,920,287	1,622,450,829
Monthly av'ge.	117,116,921	121,010,177	119,328,195	131,826,690	135,204,235

CONSUMPTION OF COPPER.

Monthly deliveries into domestic consumption as reported by the Copper Producers' Association.

	1909.	1910.	1911.	1912.	1913.
January	51,862,624	78,158,387	42,078,557	62,343,901	65,210,030
February	43,578,118	66,618,322	50,518,998	56,228,368	59,676,492
March	48,871,964	62,844,818	66,080,789	67,487,466	76,585,471
April	47,546,010	67,985,951	52,407,650	69,513,846	78,158,837
May	61,163,325	59,305,222	64,543,963	72,702,277	81,108,321
June	60,591,116	53,363,196	61,655,561	66,146,229	68,452,571
July	75,520,083	56,708,175	56,982,582	71,094,381	58,904,192
August	59,614,207	67,731,271	59,935,364	78,722,418	73,649,801
September ...	52,105,155	64,501,018	57,311,584	63,460,810	66,836,897
Adjustment ..	1,461,998	.....	.....	.....	.....
October	66,359,617	67,814,172	64,068,307	84,104,734	68,173,720
November ...	66,857,873	60,801,992	68,039,776	69,369,795	48,656,858
December ...	69,519,501	43,594,018	65,988,474	58,491,723	21,938,570
Year	705,051,591	749,426,542	709,611,605	819,665,948	767,351,760
Monthly av'ge	58,754,299	62,452,212	59,134,300	68,305,495	63,945,980

EXPORTS OF COPPER.

Monthly deliveries for export as reported by the Copper Producers' Association.

	1909.	1910.	1911.	1912.	1913.
January	38,499,797	81,691,672	53,208,739	80,167,904	60,383,845
February	30,968,496	37,369,518	45,111,019	63,148,096	72,168,523
March	59,191,043	40,585,767	59,081,127	58,779,566	77,699,306
April	65,110,111	31,332,403	62,129,599	53,252,326	85,894,721
May	70,542,753	45,495,440	61,978,557	69,485,945	68,285,978
June	70,966,457	65,895,948	71,460,519	61,449,650	68,067,901
July	75,018,974	59,407,167	74,880,658	60,121,331	78,480,071
August	48,382,704	61,831,780	69,855,660	70,485,150	73,263,469
September ...	50,077,777	75,106,496	50,824,011	60,264,796	73,085,275
Adjustment ..	1,110,105	.....	.....	.....	.....
October	56,261,238	68,186,912	60,084,349	47,621,342	68,123,473
November ...	55,266,595	67,424,316	67,049,279	55,906,550	70,067,803
December	59,546,570	88,104,075	79,238,716	65,713,796	73,542,413
Year	680,942,620	722,431,494	754,902,233	746,396.452	869,062,784
Monthly av'ge	56,745,218	60,202,624	62,908,520	62,199.705	72,421,898

DAILY RATE OF PRODUCTION AND CONSUMPTION OF COPPER.

(Tons of 2,000 lbs.)

Production:

	1909.	1910.	1911.	1912.	1913.
Jan. ..	1,809	1,880	1,866	1,925	2,314
Feb. ..	1,852	2,013	1,961	2,001	2,338
Mar. ..	1,888	1,937	2,105	2,027	2,197
April .	1,893	1,958	1,968	2,091	2,255
May ..	1,909	1,988	2,048	2,044	2,279
June ..	1,943	2,120	2,076	2,039	2,031
July ..	1,908	1,909	1,809	2,212	2,227
Aug. .	1,945	2,061	2,024	2,349	2,123
Sep. ..	1,967	1,992	1,926	2,335	2,100
Oct. ..	2,011	2,040	1,907	2,345	2,243
Nov. ..	2,027	1,989	1,865	2,245	2,234
Dec. ..	1,900	1,989	1,982	2,312	2,242
Av'ge.	1,921	1,990	1,962	2,160	2,222

Consumption:

	1909.	1910.	1911.	1912	1913.
Jan. ..	836	1,261	679	1,006	1,052
Feb. ..	778	1,190	916	969	1,066
Mar. ..	788	1,014	1,066	1,089	1,235
April .	792	1,133	873	1,159	1,302
May ..	987	957	1,041	1,173	1,308
June ..	1,010	889	1,028	1,102	1,141
July ..	1,218	915	919	1,147	950
Aug. ..	962	1,092	967	1,270	1,188
Sept. ..	868	1,075	955	1,058	1,113
Oct. ..	1,070	1,094	1,033	1,357	1,099
Nov. ..	1,114	1,013	1,134	1,156	811
Dec. ..	1,121	703	1,064	943	354
Av'ge.	962	1,028	973	1,119	1,051

DAILY RATE OF EXPORTS OF COPPER.

(Tons of 2,000 lbs.)

Exports:

	1909.	1910.	1911.	1912.	1913.
Jan.	621	1,318	858	1,293	974
Feb.	553	667	806	1,089	1,289
Mar.	955	655	953	948	1,253
April	1,085	522	1,035	888	1,432
May	1,138	734	1,000	1,121	1,101
June	1,183	1,098	1,191	1,024	1,134
July	1,210	958	1,226	968	1,266
Aug.	780	997	1,127	1,137	1,132
Sept.	835	1,252	847	1,004	1,218
Oct.	907	1,100	969	768	1,098
Nov.	921	1,124	1,117	932	1,167
Dec.	960	1,421	1,278	1,060	1,186
Average ...	929	987	1,034	1,019	1,190

STOCKS IN GERMANY AND AND HOLLAND.

Stocks of copper in Germany and Holland at the end of each month as reported by Henry R. Merton & Co.

	*1911.	*1912.	*1913.
January	22,600	13,100	*4,903
February	18,600	11,500	*8,527
March	17,300	10,900	12,813
April	16,700	10,120	13,391
May	17,750	8,000	10,583
June	17,300	6,540	10,054
July	17,950	5,580	7,283
August	18,450	5,160	7,539
September	18,350	3,740	5,296
October	17,100	3,040	4,477
November	14,600	2,560	5,277
December	13,400	2,880	8,520

* Includes only stocks in Hamburg and Rotterdam. Stocks in Bremen were added in March 1913.

FLUCTUATIONS IN THE VISIBLE SUPPLY OF COPPER.

Based on the returns of the Copper Producers' Association and H. R. Merton & Co.

	Stocks in American Producers' hands.	Monthly Fluctuation.	European Visible Supply.	Monthly Fluctuation.	Combined Visible Supply.	Monthly Fluctuation.
1909—						
Jan. 1..	122,357,266	.....	124,716,480	.....	247,073,746	.....
Jan. 31.	144,130,045	+21,772,779	118,574,400	— 6,142,080	262,704,445	+15,630,699
Feb. 27.	173,284,248	+29,154,203	117,140,800	— 1,433,600	290,425,048	+27,720,603
Mar. 31.	182,279,902	+ 8,995,654	115,032,960	— 2,107,840	297,312,862	+ 6,887,814
Apr. 30.	183,198,073	+ 918,171	114,056,320	— 976,640	297,254,393	— 58,469
May 31.	169,848,141	—13,349,932	127,352,960	+13,296,640	297,201,101	— 53,292
June 30.	154,858,061	—14,990,080	150,928,960	+23,576,000	305,787,021	+ 8,585,920
July 31.	122,596,607	—32,261,454	171,492,160	+20,563,200	294,088,767	—11,698,254
Aug. 31.	135,196,930	+12,600,323	197,608,320	+26,116,160	332,805,250	+38,716,483
Sep. 30.	151,472,772	+16,275,842	210,226,240	+12,617,920	361,699,012	+28,893,762
Oct. 31.	153,509,626	+ 2,036,854	222,559,680	+12,333,440	376,069,306	+14,370,294
Nov. 30.	153,003,527	— 506,099	236,864,320	+14,304,640	389,867,847	+13,798,541
Dec. 31.	141,766,111	—11,237,416	244,209,280	+ 7,344,960	385,975,391	— 3,892,456
Year 1909	.....	+19,408,845	.....	+119,492,800	.....	+138,901,645
1910—						
Jan. 31.	98,463,339	—43,302,772	248,209,920	+ 4,000,640	346,673,259	—39,302,132

Feb. 28.	107,187,992	+ 8,724,653	254,139,200	+ 5,920,280	361,327,192	+14,653,933
Mar. 31.	123,824,874	+16,636,882	249,607,680	— 4,531,520	373,432,554	+12,105,362
Apr. 30.	141,984,159	+18,159,285	246,863,680,	— 2,744,000	388,847,839	+15,415,285
May 31.	160,425,973	+18,441,814	239,265,600	— 7,598,080	399,691,573	+10,843,734
June 30.	168,386,017	+ 7,960,044	232,863,680	— 6,401,920	401,249,697	+ 1,558,124
July 31.	170,640,678	+ 2,254,661	222,295,360	—10,568,320	392,936,038	— 8,313,659
Aug. 31.	168,881,245	— 1,759,433	218,413,440	— 3,881,920	387,294,685	— 5,641,353
Sep. 30.	148,793,714	—20,087,531	210,472,640	— 7,940,800	359,266,354	—28,028,331
Oct. 31.	139,261,914	— 9,531,800	198,065,280	—12,407,360	337,327,194	—21,939,160
Nov. 30.	130,389,069	— 8,872,845	193,200,000	— 4,865,280	323,589,069	—13,738,125
Dec. 31.	122,030,195	— 8,358,874	187,705,280	— 5,494,720	309,735,475	—13,853,594
Year 1910		—19,735,916	.....	—56,504,000	.....	—76,239,916
1911—						
Jan. 31.	142,439,490	+20,409,295	*236,976,320	+49,271,040	379,415,810	+69,680,335
Feb. 28.	156,637,770	+14,198,280	226,210,880	—10,765,440	382,848,650	+ 3,432,840
Mar. 31	162,007,934	+ 5,370,164	223,030,080	— 3,180,800	385,038,014	+ 2,189,364
Apr. 30.	165,555,908	+ 3,547,974	212,280,320	—10,749,760	377,836,228	— 7,201,786
May 31.	165,995,932	+ 440,924	202,413,120	— 9,867,200	368,409,052	— 9,427,176
June 30	157,434,164	— 8,561,768	195,937,280	— 6,475,840	353,371,444	—15,037,608

* Hamburg and Rotterdam stocks included for the first time.

FLUCTUATIONS IN THE VISIBLE SUPPLY OF COPPER.

Based on the returns of the Copper Producers' Association and H. R. Merton & Co.

	Stocks in American Producers' hands.	Monthly Fluctuation.	European Visible Supply.	Monthly Fluctuation.	Combined Visible Supply.	Monthly Fluctuation.
1911—						
July 31.	137,738,858	—19,695,306	192,584,000	— 3,353,280	330,322,858	—23,048,586
Aug. 31	133,441,501	— 4,297,357	191,215,360	— 1,368,640	324,656,861	— 5,665,997
Sep. 30.	140,894,856	+ 7,453,355	191,945,600	+ 730,240	332,840,456	+ 8,183,595
Oct. 31.	134,997,642	— 5,897,214	176,816,640	—15,128,960	311,814,282	—21,026,174
Nov. 30	111,785,188	—23,212,454	164,151,680	—12,664,960	275,936,868	—35,877,414
Dec. 31.	89,454,695	—22,330,493	158,329,920	— 5,821,760	247,784,615	—28,152,253
Year 1911		—32,575,500	.....	—29,375,360	.....	—61,950,860
1912—						
Jan. 31.	66,280,643	—23,174,052	153,820,800	— 4,509,120	220,101,443	—27,683,172
Feb. 29.	62,939,988	— 3,340,655	141,135,680	—12,685,120	204,075,668	—16,025,775
Mar. 31.	62,367,557	— 572,431	136,808,000	— 4,327,680	199,175,557	— 4,900,111
Apr. 30.	65,066,029	+ 2,698,472	134,155,840	— 2,652,160	199,221,869	+ 46,312
May 31.	49,615,643	—15,450,386	117,797,120	—16,358,720	167,412,763	—31,809,106
June 30.	44,335,004	— 5,280,639	107,817,920	— 9,979,200	152,152,924	—15,259,839
July 31.	50,280,421	+ 5,945,417	113,290,240	+ 5,472,320	163,570,661	+11,417,737
Aug. 31.	46,701,374	— 3,579,047	113,783,040	+ 492,800	160,484,414	— 3,086,247

Sep. 30.	63,065,587	+16,364,213	107,403,520	— 6,379,520	170,469,107	+ 9,984,693
Oct. 31.	76,744,964	+13,679,377	103,801,600	— 3,601,920	180,546,564	+10,077,457
Nov. 30.	86,164,059	+ 9,419,095	96,938,240	— 6,863,360	183,102,299	+ 2,555,753
Dec. 31.	105,312,582	+19,148,523	96,857,600	— 80,640	202,170,182	+19,067,883
Year 1912		+15,857,887	.....	—61,472,320	.....	—45,614,433
1913—						
Jan. 31.	123,198,332	+17,885,750	96,546,240	— 311,360	219,744,572	+17,574,390
Feb. 28.	122,302,198	— 896,134	100,067,520	+ 3,521,280	222,369,718	+ 2,625,146
Mar. 31	104,269,270	—18,032,928	*100,965,760	+ 898,240	205,235,030	—17,134,688
Apr. 30.	75,549,108	—28,720,162	98,374,720	— 2,591,040	173,923,828	—31,311,202
May 31.	67,474,225	— 8,074,883	90,018,880	— 8,355,840	157,493,105	—16,430,723
June 30.	52,904,606	—14,569,619	85,559,040	— 4,459,850	138,463,646	—19,029,450
July 31.	53,594,945	+ 690,339	79,804,480	— 5,754,560	133,399,425	— 5,064,221
Aug. 31.	38,314,037	—15,280,908	76,260,800	— 3,543,680	114,574,837	—18,824,588
Sep. 30.	29,793,094	— 8,520,943	62,314,560	—13,946,240	92,107,654	—22,467,183
Oct. 31.	32,566,382	+ 2,773,288	57,854,480	— 4,460,080	90,420,862	— 1,686,792
Nov. 30.	47,929 429	+15,363,047	59,935,680	+ 2,081,200	107,865,109	+17,444,247
Dec. 31.	91,438,867	+43,509,438	66,124,800	+ 6,189,120	157,563,667	+49,698,558
Year 1913		—13.873,715	.....	—30,732,800	.....	—44,606,515

* Bremen stocks included for the first time.

S. BIRKENSTEIN & SONS

377 to 409 W. Ontario St.
Chicago, Illinois

INGOT COPPER PIG TIN
SPELTER PIG LEAD

ALUMINUM INGOTS, ALLOYS, SHEETS, RODS, WIRE, ETC.

AND METALS OF EVERY DESCRIPTION
BOUGHT AND SOLD

WE ALSO CARRY A COMPLETE LINE OF BRASS FOUNDRY SUPPLIES

AGENTS

Globe Metal Company's Standard INGOT BRASS, including MANGANESE and PHOSPHOR BRONZE and Brass Ingots manufactured according to Specifications

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WE BUY

Brass Borings and Brass Turnings, Brass Grindings, Brass Foundry Ashes and Residues of all kinds

CONSUMPTION OF COPPER IN THE UNITED STATES.

Based on the annual reports of the U. S. Geological Survey through 1908, and the returns of the Copper Producer's Association for subsequent years.

1891	.... available supply	176,315,176
1892	.... "	256,549,590
1893	.... "	151,415,567
1894	.... "	197,490,815
1895	.... "	258,701,337
1896	.... "	196,103,142
1897	.... "	234,745,630
1898	.... "	299,727,082
1899	.... "	411,512,781
1900	. estimated consumption ..	356,891,121
1901	.... "	382,761,014
1902	.... "	551,688,131
1903	.... "	526,429,885
1904	.... "	482,190,920
1905	.... "	581,006,325
1906	.... "	686,265,987
1907	.... "	487,771,625
1908	.... "	479,955,318
1909	.. domestic deliveries ...	705,051,591
1910	.... "	749,426,542
1911	.... "	709,611,605
1912	.... "	819,665,948
1913	.... "	767,351,760

PRODUCTION OF COPPER IN THE UNITED STATES.

According to Class. (In pounds).

(As reported by the Mineral Industry.)

Year.	Lake.	Electrolytic (d)	Casting (d)	Pig Copper (a)	Total.
1904	208,329,248	705,478,400	b45,000,000	44,408,000	1,003,215,648
1905	219,000,000	c760,000,000	46,000,000	33,495,000	c1,058,494,000
1906	224,071,000	c860,000,000	52,000,000	29,098,000	c1,165,169,000
1907	220,317,041	854,441,000	47,957,890	30,032,000	1,152,747,931
1908	222,267,444	850,660,325	44,967,250	35,000,000	1,152,895,019
1909e	226,602,134	1,101,518,458	67,471,446	43,159,018	1,438,751,056
1910f	221,460,864	1,151,624,597	g55,673,196	46,903,463	g1,475,602,120
1911	216,412,867	1,156,627,311	22,977,534	35,920,626	1,431,938,338
1912	231,628,486	1,288,333,298	24,777,266	37,181,237	1,581,920,287
1913b	161,000,000	1,390,000,000	25,000,000	39,000,000	1,615,000,000

(a) Exported. (b) Estimated. (c) Partly estimated. (d) Included copper from scrap and junk. (e) The statistics for 1909 are officially communicated by the Copper Producers' Association, except that to its report of 84,123,446 lbs. of casting copper there has been added 33,348,000 lbs. reported by the junk smelters. The term "Lake" copper is here used to designate all copper sold in the trade as such regardless of the process by which it is refined. (f) Copper Producers' Association through Engineering and Mining Journal, May 6, 1911. (g) Includes 23,480,000 lbs. from scrap.

EXPORTS OF COPPER.

Exports of copper according to destination; compiled by the New York Metal Exchange; in tons of 2,240 lbs.

	1904.	1905.	1906.	1907.	1908.	1909	1910	1911.	1912.	1913.
England..	51,031	30,358	28,403	35,236	52,839	68,578	41,865	48,846	42,531	55,682
France ..	44,825	31,906	34,449	42,727	52,153	42,841	48,046	61,024	56,337	65,826
Germany .	44,205	47,444	47,729	47,596	61,916	64,403	80,843	88,047	116,095	145,529
Holland ..	67,371	58,719	68,692	73,703	85,421	92,106	94,913	99,983	66,889	77,129
Belgium ..	4,136	2,960	2,763	1,970	2,713	4,016	3,053	2,074	3,273	2,782
Austria ..	11,397	10,096	9,019	11,027	14,505	17,228	17,038	18,191	18,456	15,539
Italy	7,043	7,162	8,478	8,459	11,835	11,411	15,044	16,611	20,882	18,877
Russia ...	10,865	6,675	2,019	1,058	1,219	165	350	888	185	40
China and Japan ..	4,675	43,343	2,222	4,911	6,298	53	...	139	502	80
Sundries..	2,187	1,200	1,686	2,149	1,344	856	783	998	2,815	1,326
Total ...	247,735	239,863	205,460	228,836	290,243	301,657	301,935	336,801	327,965	382,810

EXPORTS OF COPPER.

Exports of copper from the United States, compiled by the New York Metal Exchange from Custom House returns, in tons of 2,240 lbs.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	29,085	21,245	15,307	17,039	33,019	19,190	26,699	29,357	31,229	25,026
February .	17,073	17,508	15,801	9,174	24,640	13,886	25,238	19,492	31,894	26,792
March	22,852	21,073	16,433	13,432	21,720	20,824	19,963	23,600	27,074	42,428
April	13,983	24,121	16,330	17,363	31,853	28,333	13,062	27,466	22,591	33,274
May	14,772	23,758	19,260	9,036	22,640	31,473	20,832	27,670	32,984	38,601
June	16,279	22,096	18,634	16,470	29,999	33,774	23,430	30,489	26,669	28,015
July	19,490	18,478	18,309	14,774	17,840	35,046	23,018	36,659	26,761	29,596
August	24,906	22,692	20,433	13,458	25,906	22,916	27,976	29,018	29,526	35,072
September.	20,569	19,755	14,119	17,157	19,428	20,207	31,733	26,170	25,572	34,356
October ...	26,585	17,784	17,528	29,161	21,962	23,876	27,917	22,555	25,020	29,239
November.	22,294	13,195	18,451	34,087	19,346	24,028	30,441	26,600	19,171	29,758
December .	19,847	18,158	14,855	37,685	21,890	28,104	31,626	37,725	29,474	30,653
Total ...	247,735	239,863	205,460	228,836	290,243	301,657	301,935	336,801	327,965	382,810
Average ...	20,644	19,988	17,121	19,069	24,187	25,138	25,161	28,066	27,330	31,901

IMPORTS OF COPPER.

Imports of copper to the United States according to New York Metal Exchange figures; ore, matte and regulus reduced to fine copper, in tons of 2,240 lbs.

	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Jan.	6,850	7,550	10,700	7,300	9,700	13,800	10,600	17,800	18,500
Feb.	7,000	8,230	9,800	8,600	12,300	9,000	13,400	13,000	13,500
Mar.	7,795	9,960	12,700	6,400	11,700	12,200	13,500	14,200	16,000
April ...	7,530	7,680	11,240	7,300	14,100	15,000	13,600	16,000	14,500
May	7,125	8,785	11,810	3,300	11,500	14,000	11,600	14,000	14,500
June	7,800	8,900	9,150	6,100	12,900	12,000	12,000	14,000	11,500
July	7,150	8,520	13,600	6,700	12,000	10,700	11,000	14,500	16,500
Aug.	6,600	8,340	9,600	8,000	8,600	11,600	14,300	13,500	14,000
Sept.	10,600	8,135	8,100	8,000	9,200	13,200	15,000	14,000	20,500
Oct.	9,100	10,600	9,500	12,700	12,500	13,000	12,000	17,000	12,500
Nov.	8,050	9,550	8,300	10,200	15.500	13,500	10,000	14,000	13,000
Dec.	9,000	8,350	6,500	13,100	10,000	15,000	15,000	17,000	*15,000
Total .	94,600	104,650	121,000	97,700	140,000	153,000	152,000	179,000	180,000

* Estimated.

MORRISON KEKEWICH

& CO.

70 Gracechurch Street
LONDON, England

Should you require a

BROKER

to buy or sell any kind of raw or manufactured

METALS

Cable:
MORRISON—LONDON

FOREIGN VISIBLE SUPPLY OF COPPER.

This includes the stocks in England and France and copper afloat thereto from Chili and Australia, as per statistics issued by H. R. Merton & Co., it does not include the stocks in Germany and Holland; in tons of 2,240 lbs.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	14,233	15,733	10,951	13,991	20,660	52,935	110,808	83,193	55,570	38,198
February ...	13,299	17,125	8,946	13,483	20,773	52,295	113,455	82,387	51,507	36,146
March	12,496	16,745	9,016	15,007	23,265	51,354	111,432	82,267	50,175	32,261
April	12,026	18,055	9,138	12,958	26,643	50,918	110,207	78,068	49,771	30,437
May	10,823	17,227	9,986	11,729	31,158	56,854	106,815	72,613	44,588	29,604
June	11,137	18,035	12,275	12,298	37,711	67,379	103,957	70,172	41,593	28,142
July	12,867	17,441	12,628	12,907	42,134	76,559	99,239	68,025	44,996	28,344
August	13,415	17,620	11,932	14,220	45,072	88,218	97,506	66,914	45,636	26,506
September .	13,878	16,304	12,483	12,138	50,277	93,851	93,961	67,340	44,208	22,523
October ...	13,490	15,772	12,979	12,728	51,532	99,357	88,422	61,836	43,300	21,350
November .	16,044	13,690	14,243	15,789	51,999	105,743	86,250	58,682	40,720	21,480
December ..	16,670	13,070	16,920	19,770	55,680	109,022	83,797	57,283	40,360	21,000
Average ...	13,365	16,401	11,791	13,918	38,075	75,373	100,488	70,732	46,035	27,999

CONSUMPTION OF COPPER IN EUROPE.

European consumption of copper according to A. Hirsch & Sohn; in tons of 2,240 lbs.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Germany	140,006	137,975	163,098	160,217	187,127	194,449	216,789	234,229	253,429
France..	64,235	61,010	68,927	70,712	80,509	85,688	92,838	106,997	106,753
England	135,327	111,388	121,256	119,582	134,492	110,648	148,187	159,736	148,877
Austria-Hungary	26,366	25,830	27,976	30,472	36,972	34,605	35,700	40,000	51,574
Italy ...	18,162	20,284	25,237	31,984	29,496	25,189	23,788	30,437	34,378
Russia ..	31,370	28,797	24,532	18,739	21,300	21,705	28,227	31,845	38,818
Belgium & Holland	10,590	11.980	12,798	11,500	9,500	9,500	14,000	13,000	13,000
Scandinavia	3,500	3,500	7,000	10,200	9,700	9,700	*7,500	*7,500	*7,500
Rest of Europe ..	1,800	2,500	3,000	2,500	2,500	3,000	*2,500	*2,500	*2,500
Total.	431,356	403,264	453,824	455,906	511,596	494,484	569,529	626,244	656,829

COPPER PRICES IN NEW YORK.

Extreme yearly fluctuations in the price of Lake copper in New York from 1860 to 1883 inclusive.

	Highest.	Lowest.
1860	24.00	19.75
1861	27.00	17.50
1862	32.87½	20.75
1863	38.75	29.00
1864	55.00	39.00
1865	50.50	28.00
1866	42.00	26.50
1867	29.25	21.50
1868	24.50	21.50
1869	27.00	21.50
1870	23.37½	19.00
1871	27.00	21.25
1872	44.00	27.12½
1873	35.00	21.00
1874	25.00	19.00
1875	23.87½	21.50
1876	23.25	18.75
1877	20.50	17.50
1878	17.62½	15.50
1879	21.75	15.50
1880	25.00	17.87½
1881	20.37½	16.00
1882	20.37½	17.87½
1883	18.12½	14.87½

QUINCY MINING COMPANY

Of Michigan

32 Broadway, NEW YORK

Mining and Refining

Highest Grade Lake Superior Copper

Mine and Smelter,
HANCOCK, MICH.

ESTABLISHED 1789.

Nathan Trotter & Co.

Importers and Dealers in

Tin Copper Lead Spelter and Antimony

INGOT ALUMINUM
BISMUTH AND NICKEL

36 North Front St., Philadelphia, Pa.

COPPER PRICES IN NEW YORK.

Highest, lowest and average prices of Lake Copper in New York:

Year.	Highest.	Lowest.	Average.
1884	15.00	11.00	13.75
1885	11.50	9.75	11.10
1886	12.12½	10.00	11.00
1887	17.75	9.12½	11.25
1888	17.50	15.75	16.80
1889	17.50	11.00	13.75
1890	17.25	14.00	15.75
1891	15.00	10.25	12.87½
1892	12.37½	10.50	11.50
1893	12.50	9.62½	10.65
1894	10.25	9.00	9.43
1895	12.75	9.25	10.70
1896	11.75	9.75	10.92½
1897	12.00	10.75	11.30
1898	12.87½	10.87½	12.01
1899	19.50	13.00	17.75
1900	17.25	16.00	16.70
1901	17.00	13.00	16.77
1902	13.50	11.00	12.14
1903	15.37½	12.00	13.72
1904	15.37½	12.00	13.24
1905	20.00	14.87½	16.09
1906	25.00	18.37½	19.87
1907	26.25	12.50	21.30
1908	14.62½	12.62½	13.50
1909	14.62½	12.75	13.39
1910	14.00	12.50	13.12
1911	14.37½	12.20	12.71
1912	17.80	14.15	16.58
1913	17.75	14.50	15.70
Average for 30 years			13.84½

JOSEPH E. GAY, Pres.
J. R. STANTON, Treas. J. W. HARDLEY, Sec.
MOHAWK MINING COMPANY
of Michigan
Mine Office:
Mohawk P. O. Keweenaw Co., Mich.

JOSEPH E. GAY, Pres.
J. R. STANTON, Treas. J. W. HARDLEY, Sec.
WOLVERINE COPPER MINING COMPANY
of Michigan
Mine Office:
Kearsarge P. O. Houghton Co. Mich.

J. R. STANTON, Treas.,
15 WILLIAM STREET. NEW YORK.
Sales Agent for Above Companies.

White & Bro., Inc.

COPPER

Smelters of

Copper Bearing Material

Philadelphia, Pa.

LAKE COPPER PRICES.

Average monthly prices of Lake Copper in New York.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	12.81	15.40	19.33	25.55	13.93⅛	14.40	13.93	12 75	14.37½	16.89
February ..	12.46	15.43	18.58	25.71	13.33	13.56⅛	13.76⅛	12.73	14.38⅛	15.37½
March	12.67	15.43	18.63	26.05	12.98	12.94	13.71⅛	12.56	14.87	14.96
April	13.37	15.27	18.78	25.37	12.99	12.99	13.31	12.41	15.98	15.55
May	13.29	15.08	18.91	25.21	12.90	13.28	12.98	12.32	16.27	15.73
June	12.75	15.15	18.89	24.87	12.95	13.54⅛	12.83⅛	12.63	17.43	15.08
July	12.79	15.15	18.66	23.35	13.00⅛	13.44	12.62⅛	12.7[illegible]	17.37	14.77
August ...	12.74	16.13	18.76	20.92	13.73	13.45	12.78⅛	12.70	17.61	15.79
September.	12.84	16.70	19.38	16.75	13.69	13.07	12.72	12.57	17.69	16.72
October ...	13.33	16.93	22.20	14.12	13.63	13.00	12.90	12.47½	17.69	16.81
November.	14.71	17.16	22.72	14.10	14.42	13.39	13.00⅛	12.84	17.66	15.90
December .	15.10	19.24	23.62	13.65	14.47	13.66⅛	12.92	13.79	17.62⅛	14.82
Average ...	13.24	16.09	19.87	21.30	13.50	13.39	13.12	12.71	16.58	15.70

PHELPS, DODGE & CO.

(INCORPORATED)

99 JOHN STREET

NEW YORK

—

COPPER

—

BRANDS

"C★Q" ELECTROLYTIC

"P. D. Co." CASTING

ELECTROLYTIC COPPER PRICES.

Average monthly prices of Electrolytic Copper in New York.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	12.73⅛	15.22⅛	19.26	25.41	13.95⅛	14.08⅛	13.68	12.53	14.27	16.75⅛
February ..	12.33⅛	15.30	18.53	25.58	13.23	13.21⅛	13.51	12.48	14.26	15.27
March	12.57	15.29	18.55⅛	25.74	12.91	12.58⅛	13.42⅛	12.31	14.78	14.92⅛
April	13.16	15.20	18.68⅛	25.10	12.89	12.67	12.93	12.15⅛	15.85	15.48
May	13.05	15.01	18.81	25.00	12.82	13.02⅛	12.67	12.13	16.16	15.63
June	12.62⅛	15.04	18.77⅛	23.97	12.85	13.26	12.59	12.55	17.29	14.85
July	12.69⅛	15.09	18.54	22.11	12.88	12.97	12.36⅛	12.62⅛	17.35	14.57
August ...	12.71	16.13	18.59	19.85	13.61	13.06	12.56	12.57⅛	17.60	15.68
September.	12.77	16.68⅛	19.36⅛	16.35	13.58⅛	12.93	12.49	12.39	17.67	16.55
October ...	13.20	16.76	22.18	13.82⅛	13.52⅛	12.81	12.77⅛	12.36	17.60	16.54
November.	14.51	17.06	22.58	13.94	14.21	13.24	12.87⅛	12.77	17.49	15.47
December .	14.96⅛	19.11	23.46	13.49⅛	14.21	13.48	12.72⅛	13.71	17.50⅛	14.47
Average ...	13.11	15.98	19.77⅛	20.86	13.39	13.11	12.88	12.55	16.48	15.52

MONEL METAL

Sheets, Rods, Wire Castings, Forgings, Wire Cloth, Etc.

This wonderful metal, the **only natural nickel and copper** alloy has the strength of steel with the non-corrodibility of copper and it will outwear and outlast the best phosphor-bronze with a big saving in initial cost and a greater saving in ultimate cost.

Monel Metal in all forms can be used to advantage wherever strong acid or alkali conditions prevail. It is positively non-corrodible and unaffected by super heated steam, weather conditions or salt water.

Send your name to-day and be put on the regular mailing list of the Supplee-Biddle Bulletin and also receive full information on Monel Metal.

Supplee-Biddle Hardware Co.

Manufacturers and Distributors

5th and Cuthbert Sts., Philadelphia

150 Chambers St., New York

London **Montreal Stockholm Buffalo**

CASTING COPPER PRICES.

Average monthly price of Casting Copper in New York.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	12.43	15.05⅛	18.38	24.80	13.59⅛	13.94	13.60	12.39	14.02	16.57
February ..	12.21	15.07	17.91	24.87⅛	13.00	12.94	13.41	12.33	14.02	15.14
March	12.41	15.06	18.29	24.86	12.65	12.49	13.31	12.20	14.53	14.76
April	13.08	14.99	18.37⅛	24.05	12.68	12.55	12.87	12.07	15.72⅛	15.33
May	12.83	14.67	18.47⅛	23.37	12.66	12.87	12.62	12.08	16.01	15.45⅛
June	12.33⅛	14.68⅛	18.53⅛	22.10	12.63	13.22	12.52	12.40	17.08	14.72
July	12.42	14.76	18.22	21.18	12.68	12.96	12.30	12.49⅛	17.09	14.40⅛
August ...	12.50	15.68	18.37	18.93⅛	13.44	13.01	12.48	12.42	17.35	15.50
September.	12.66	16.39	19.04	15.93	13.43⅛	12.90	12.46	12.23	17.51	16.37⅛
October ..	13.03⅛	16.47⅛	21.73	13.55⅛	13.33	12.77⅛	12.70	12.21	17.44	16.33
November.	14.34	16.85⅛	22.26	13.82	14.06	13.16	12.82	12.61	17.34	15.19
December .	14.83	18.40	23.00	13.27⅛	14.08	13.41	12.64	13.56⅛	17.34	14.22
Average ..	12.92	15.67⅛	19.38	20.06	13.18⅛	13.02	12.81	12.42	16.29	15.33

This Trade Mark

Stands for the best quality Car and Locomotive Bearings. Ingot Metals and White Metals of all kinds.

THE AJAX METAL CO.

Main Office and Works
PHILADELPHIA

Southern Plant
BIRMINGHAM, ALA.

PURE MANGANESE 98-99%
and MANGANESE ALLOYS

of various compositions, carbon free and technically free from iron and other impurities, in convenient size, for

BRASS and BRONZE
GERMAN SILVER
MONEL METAL
NICKEL
ALUMINUM
COMPOSITION

Write for Metals Booklet No. 2066, which contains full information on the subject and many useful formulas and suggestions.

Goldschmidt Thermit Co.

WM. C. CUNTZ, Gen. Mgr.

90 WEST ST., NEW YORK

329-333 Folsom St., San Francisco
7300 S. Chicago Ave., Chicago:
105 Richmond St. W., Toronto, Ont.

WATERBURY COPPER AVERAGE.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	12.75	15.50	18.75	25.25	14.00	14.37½	13.87½	12.87½	14.50	17.00
February ..	12.50	15.50	18.50	25.75	13.25	13.25	13.87½	12.75	14.50	15.50
March	12.75	15.50	18.62½	26.00	13.00	12.87½	13.75	12.50	15.00	15.12½
April	13.37½	15.37½	18.75	26.00	13.00	13.00	13.25	12.50	16.00	15.75
May	13.25	15.25	18.87½	26.00	13.00	13.25	13.00	12.37½	16.37½	15.87½
June	12.75	15.12½	18.87½	26.00	13.00	13.50	12.75	12.62½	17.50	15.37½
July	12.75	15.12½	18.75	23.00	13.00	13.50	12.75	12.75	17.75	14.75
August ...	12.75	16.00	18.87½	18.50	13.75	13.50	12.75	12.75	17.75	15.62½
September.	12.75	16.75	19.50	16.50	13.75	13.25	12.75	12.62½	17.87½	16.87½
October ..	13.37½	16.75	22.00	13.75	13.75	13.12½	12.87½	12.50	17.75	16.87½
November.	14.87½	17.25	22.75	13.62½	14.50	13.62½	13.00	12.87½	17.75	16.25
December .	15.12½	19.00	23.50	13.75	14.50	13.75	13.00	13.87½	17.75	15.00
Average ...	13.25	16.09	19.81	21.17½	13.54	13.41½	13.13½	12.75	16.71	15.83

COMPARISON OF COPPER PRICES.

	New York				Waterbury	London	
	Lake.	Electrolytic.	Casting.	Standard.	Average.	Standard.	B. Selected*
1900	16.70	16.54	16.39	.....	16.65	16.00	17.05
1901	16.77	16.40	16.29	.....	16.73	14.56	15.96
1902	12.14	11.96	11.88	.....	12.13	11.43	12.31
1903	13.72	13.62	13.26	.....	13.79	12.64	13.64
1904	13.24	13.11	12.92	.....	13.25	12.83	13.61
1905	16.09	15.98	15.67	.....	16.09	15.13	16.15
1906	19.87	19.77	19.38	.....	19.81	19.00	20.05
1907	21.30	20.86	20.06	.....	21.17	18.91	20.37
1908	13.50	13.39	13.18	.....	13.54	13.04	13.82
1909	13.39	13.11	13.02	.....	13.41	12.80	13.53
1910	13.12	12.88	12.81	12.48	13.13	12.40	13.29
1911	12.71	12.55	12.42	12.15	12.75	12.20	12.99
1912	16.58	16.48	16.29	16.19	16.71	15.87	16.91
1913	15.70	15.52	15.33	15.07	15.83	14.87	16.03

* Best Selected subject to discount of 2½ per cent.

HIGH SHEET BRASS PRICES.

Base prices on High Sheet Brass prevailing on the first of each month from January 1, 1904 to and including December 1, 1913.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ..	12.75	14.62½	17.75	21.00	14.00	14.75	14.00	13.50	14.37½	17.12½
February ..	12.75	14.62½	17.75	22.50	14.00	14.25	14.00	13.00	14.75	16.25
March	12.25	15.25	17.75	22.50	13.00	13.25	14.00	13.00	14.50	15.12½
April	12.50	15.25	17.75	22.50	13.50	13.25	14.00	13.00	15.50	15.12½
May	12.75	14.75	17.75	22.50	13.25	12.75	13.25	13.00	15.75	15.37½
June	13.12½	14.75	17.75	22.50	13.25	12.75	13.25	12.75	16.25	15.37½
July	12.62½	14.75	17.75	22.50	13.25	13.25	13.00	13.12½	16.25	14.75
August	12.62½	14.75	17.75	20.75	13.25	13.25	13.00	13.12½	17.00	14.75
September.	12.62½	16.25	17.75	17.25	14.00	13.25	13.00	13.12½	17.00	15.37½
October ..	12.62½	16.25	18.50	15.00	14.00	13.25	13.00	13.12½	17.37½	16.00
November .	13.37½	16.25	20.00	15.00	14.00	13.25	13.00	13.12½	17.37½	16.00
December .	14.62½	16.75	20.00	14.00	14.75	14.00	13.25	13.62½	13.77½	14.75

Hendricks Brothers

INCORPORATED

Sheet and Bar
Copper

Copper Firebox
Plates and Staybolts

Braziers' Rivets

Copper Rods

IMPORTERS
AND DEALERS IN

Ingot Copper, Block Tin,
Spelter, Lead, Antimony
Bismuth, Nickel, Etc.

49 Cliff Street, New York

SHEET COPPER PRICE CHANGES.

Changes in the base price of sheet copper, compiled from manufacturers records, with the price of Lake copper in New York on the same dates:

	Sheet copper.	Lake copper.
1898—		
Dec. 10.	16.50	12.75
1899—		
Jan. 19.	18.50	15.00
Jan. 24.	19.50	16.00
Feb. 2..	21.50	18.00
May 2..	22.50	19.37½
1900—		
Jan. 19.	20.50	16.50
1901—		
Mar. 21.	21.00	17.00
1902—		
Jan 2..	18.00	13.00
Jan. 23.	16.00	11.12½
Feb. 3..	18.00	13.50
1903—		
Mar. 12.	20.00	15.12½
Mar. 21.	21.00	15.25
Oct. 22.	19.00	13.00
1905—		
Aug. 22.	20.00	16.25
Aug. 31.	21.00	17.00
Dec. 4..	23.00	18.00
1906—		
Sep. 20.	24.00	19.25
Oct. 4..	25.00	21.00
Oct. 11.	27.00	22.37½
Dec. 20.	29.00	23.50
1907—		
Jan. 17.	30.00	25.75
Feb. 7..	32.00	25.75
July 11.	28.00	23.00
Sep. 4..	24.00	18.87½
Sep. 26.	20.00	15.37½
1908—		
Feb. 27.	17.00	13.12½
Aug. 17.	18.00	13.62½
Nov. 13.	19.00	14.62½
1909—		
Jan. 12.	17.50	14.50
Feb. 18.	16.50	13.37½
May 25.	17.00	13.37½
Nov. 17.	18.00	13.50
1910—		
Feb. 23.	19.00	13.50
May 2..	18.00	12.87½
Oct. 29.	16.65	13.00
1911—		
May 12.	16.00	12.20
June 7..	16.50	12.50
Nov. 23.	17.00	13.12½
Dec. 11.	18.00	13.62½
Dec. 20.	19.00	14.25
1912—		
Mar. 20.	20.00	14.80
April 2.	21.00	16.00
May 24.	21.50	16.50
June 5..	22.00	17.25
Aug. 24.	23.00	17.75
1913—		
Jan. 31.	22.00	16.31¼
Feb. 25.	21.00	14.80
June 23.	20.00	14.75
Aug. 7..	21.00	15.43¾
Sep. 8..	22.00	16.87½
Dec. 1..	20.25	15.00
Dec. 16.	19.75	14.62½
Dec. 26.	20.00	15.00

The

Market and Fulton National Bank

Of New York

Capital and Surplus . . $2,935,000

Statement, October 21, 1913

RESOURCES

Loans and Discounts - -		$8,568,611.23
U. S. Bonds - - - - -		250,000.00
Other Bonds and Stocks -		134,003.75
Banking House - - - -		550,000.00
Other Real Estate - - -		17,788.33
Cash Items:		
Cash in Vault	$2,638,767.65	
Exchanges for Clearing House	529,317.60	
Due from Banks	1,237,028.75	4,405,114.00
		$13,925,517.31

LIABILITIES

Capital - - - - - -	$1,000,000.00
Surplus and Profits - -	1,935,820.77
Circulation - - - - - -	104,400.00
Deposits - - - - - -	10,885,296.54
	$13,925,517.31

CONSUMPTION OF PIG IRON AND COPPER IN UNITED STATES.

The figures for the period 1899-1908 were compiled by James Douglas, LLD.

(Long tons)	Pig iron consumed.	Per cent of increase.	Copper consumed	Per cent of increase.	Ratio of iron to copper.
1899	13,779,442	14.69	174,822	42.85	79
1900	13,177,409	*4.45	155,169	*11.24	85
1901	16,232,446	23.18	196,837	26.85	82
1902	18,436,870	13.58	209,241	6.30	88
1903	18,039,909	*2.15	221,222	5.73	82
1904	16,679,555	*7.54	208,082	*5.94	80
1905	23,155,625	38.82	273,652	31.51	85
1906	25,603,702	1.06	298,472	9.07	89
1907	26,197,133	2.32	240,098	*19.55	109
1908	15,981,524	*38.99	218,087	*9.17	73
1909	25,909,924	62.12	314,755	44.32	82
1910	27,413,415	5.80	334,565	6.29	82
1911	23,677,207	*13.62	316,791	*5.31	74
1912	29,583,586	19.96	365,922	15.50	80
	293,867,747		3,527,715		83

FOREIGN COPPER PRICES.

Prices of Tough Copper according to tables compiled by Messrs. Vivian, Younger & Bond, London.

Year.	£	Year.	£
1780....	84	1834....	96 @ 100
1785....	78 @ 84	1835....	91 @ 96
1790....	86	1836....	95 @ 117
1795....	100	1837....	82 @ 101
1800....	142 @ 154	1838....	86 @ 96
1801....	160	1839....	92 @ 96
1802....	134 @ 160	1840....	91 @ 98
1803....	134 @ 150	1841....	96 @ 100
1804....	150 @ 166	1842....	83 @ 98
1805....	168 @ 198	1843....	79 @ 86
1806....	160 @ 198	1844....	81 @ 88
1807....	152 @ 164	1845....	84 @ 93
1808....	130 @ 200	1846....	88 @ 93
1809....	150 @ 170	1847....	88 @ 98
1810....	153 @ 170	1848....	79 @ 98
1811....	143 @ 153	1849....	79 @ 89
1812....	135 @ 145	1850....	79 @ 89
1813....	120 @ 132	1851....	84 @ 89
1814....	115 @ 135	1852....	89 @ 103
1815....	124 @ 135	1853....	107 @ 135
1816....	102 @ 122	1854....	126
1817....	105 @ 133	1855....	126
1818....	123 @ 135	1856....	108 @ 126
1819....	135	1857....	107 @ 135
1820....	135	1858....	98 @ 126
1821....	107 @ 121	1859....	102 @ 113
1822....	95 @ 107	1860....	98 @ 115
1823....	95	1861....	93 @ 107
1824....	95 @ 105	1862....	93 @ 107
1825....	95 @ 105	1863....	89 @ 103
1826....	103 @ 140	1864....	93 @ 113
1827....	95 @ 98	1865....	86 @ 116
1828....	103	1866....	81 @ 101
1829....	92 @ 103	1867....	74 @ 83
1830....	85 @ 92	1868....	74 @ 82
1831....	87	1869....	71 @ 82
1832....	86 @ 96	1870....	67 @ 71
1833....	96 @ 103		

FOREIGN COPPER PRICES.

Extreme yearly fluctuations of G. M. B. and Standard copper in London:

Year.	Highest.			Lowest.		
1875	£84	0s	0d	£78	10s	0d
1876	81	15	0	70	0	0
1877	76	0	0	63	0	0
1878	66	10	0	55	0	0
1879	67	10	0	53	0	0
1880	74	0	0	54	10	0
1881	72	10	0	57	0	0
1882	71	10	0	63	0	0
1883	67	10	0	57	0	0
1884	58	0	0	47	5	0
1885	61	12	6	38	10	0
1886	43	15	0	38	10	0
1887	85	5	0	38	7	6
1888	105	0	0	73	0	0
1889	80	0	0	†35	0	0
1890	61	12	6	46	10	0
1891	56	10	0	44	0	0
1892	48	0	0	43	10	0
1893	46	15	0	40	12	0
1894	43	0	0	37	16	3
1895	47	7	6	38	12	6
1896	50	10	0	40	10	0
1897	51	15	0	47	0	0
1898	57	8	9	49	10	0
1899	79	2	6	58	1	3
1900	78	7	6	70	15	0
1901	72	17	6	47	0	0
1902	57	0	0	45	2	6
1903	67	0	0	52	15	0
1904	68	5	0	55	2	6
1905	80	12	6	64	0	0
1906	108	0	0	76	15	0
1907	*110	15	0	55	10	0
1908	65	2	6	56	2	6
1909	64	3	9	54	10	0
1910	62	1	3	52	15	0
1911	64	0	0	53	7	6
1912	80	1	3	60	17	6
1913	77	2	6	61	15	0

* Highest. † Lowest.

FOREIGN COPPER PRICES.

Average yearly price of Standard, (G. M. B.) and Best Selected in London, (per gross ton):

	Standard.			Best Selected.		
	£	s	d	£	s	d
1884	53	17	6	61	0	0
1885	43	11	0	49	0	0
1886	40	1	8	44	0	0
1887	46	0	5	46	0	0
1888	81	11	3	79	0	0
1889	49	14	8	55	3	10
1890	54	5	3	61	11	10
1891	51	9	4	56	11	2
1892	45	13	2	49	18	9
1893	43	15	6	48	0	0
1894	40	7	4	43	7	2
1895	42	19	7	46	15	5
1896	46	18	1	50	13	5
1897	49	2	7	52	5	7
1898	51	16	7	55	8	7
1899	73	13	9	78	3	2
1900	73	12	6	78	9	1
1901	66	19	8	73	8	9
1902	52	11	5	56	12	7
1903	58	3	2	62	14	7
1904	59	0	6	62	12	1
1905	69	12	0	74	5	10
1906	87	8	6	92	5	0
1907	87	1	8	93	14	6
1908	60	0	6	63	11	8
1909	58	17	3	62	4	2
1910	57	3	2	61	3	0
1911	56	1	9	59	14	2
1912	73	0	1	77	15	7
1913	68	3	11	73	15	3

STANDARD COPPER PRICES.

Average monthly price of prompt Standard (G. M. B.) Copper in London.

	1907.			1908.			1909.			1910.			1911.			1912.			1913.		
	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d
Jan.	106	17	0	62	9	9	61	6	7	61	0	10	55	14	3	62	15	0	71	14	10
Feb. ...	107	10	9	59	1	0	57	18	10	59	10	7	55	1	7	62	17	2	65	10	5
Mar. ...	106	13	0	58	15	8	56	6	9	59	7	2	54	16	4	66	16	2	65	6	7
April ...	98	13	7	57	7	7	57	9	1	57	5	0	54	3	2	70	3	7	68	2	2
May ...	102	8	2	57	10	8	59	9	8	56	6	11	54	8	7	72	7	3	68	16	1
June ...	97	4	3	57	19	7	59	14	11	55	8	11	56	9	10	78	5	0	65	2	6
July ...	95	5	9	58	1	8	59	14	1	54	5	6	56	15	6	76	10	5	64	3	3
Aug. ...	79	17	5	60	13	9	59	10	2	55	17	5	56	7	6	78	13	2	69	4	0
Sept. ...	68	8	10	60	8	6	59	3	3	55	6	5	55	7	1	78	14	5	73	9	4
Oct. ...	60	17	6	60	5	3	57	13	2	56	16	2	55	5	3	76	8	1	73	8	0
Nov. ...	61	3	8	63	10	8	58	19	4	57	15	3	57	8	4	76	18	4	68	5	4
Dec. ...	60	0	2	63	1	5	60	1	0	56	18	1	61	3	11	75	10	3	65	4	5
Average	87	1	8	60	0	6	58	18	11	57	3	2	56	1	9	73	0	1	68	3	11

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Importers Of

Pig Tin
Antimony

Dealers In

"EVERY METAL

the Brass Founder Needs"

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117-125 Beverly }
BOSTON

TIN SUPPLIES.

Tin supplies of the world, compiled by N Y. Metal Exchange, in tons of 2,240 lbs.

Year	Shipments from Straits Settlements.	from Australia.	from Bolivia.	from So. Africa.	from China.	Banca Sales in Holland	Billiton Sales in Java.	Production in Cornwall.	Grand Total.
1913	62,500	3,200	24,850	3,200	2,450	14,800	2,200	5,800	119,000
1912	59,000	3,800	21,200	3,100	3,800	16,000	2,200	5,500	114,600
1911	55,100	4,000	22,600	2,900	2,500	15,000	2,200	5,300	109,600
1910	54,600	4,650	17,550	3,000	2,200	13,500	2,200	5,800	103,500
1909	58,500	5,350	18,000	3,000	.....	11,600	2,200	5,600	104,250
1908	60,500	5,850	17,000	1,700	.....	11,500	2,200	5,400	104,150
1907	52,500	6,350	15,300	.....	200	10,890	2,150	4,900	92,290
1906	57,200	5,900	16,380	.....	1,500	8,980	1,900	4,900	96,760
1905	57,000	4,900	11,900	.....	.....	9,625	2,625	4,500	90,550
1904	57,700	4,700	11,900	.....	.....	11,000	3,100	4,000	92,400
1903	52,100	4,500	9,800	.....	.....	14,500	3,600	4,500	89,000
1902	52,000	3,500	9,750	.....	.....	14,460	3,760	4,500	87,970
1901	50,400	3,500	7,600	.....	.....	14,500	4,250	4,500	84,750
1900	46,000	3,000	5,500	.....	.....	12,500	5,700	4,500	77,200
1899	44,300	3,250	4,300	.....	.....	9,350	5,125	4,200	70,525

Arthur Seligmann

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NEW METALS

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ORES

ALUMINUM in all Forms

Sole Agent in U. S. A. for

The BRITISH ALUMINIUM CO., Ltd.

London, England

TIN DELIVERIES.

Tin deliveries (consumption) of the world, compiled by New York Metal Exchange, in tons of 2,240 lbs.

	London Deliveries.	Continent of Europe.	Figured as delivered in Europe — Cornwall Production.	Bolivian Shipments.	South African Shipments.	China Shipments.	United States.	Grand Total.
1913 ..	17,897	25,631	5,800	24,850	3,200	2,450	45,551	(a) 116,079
1912 ..	18,592	26,625	5,500	21,200	3,100	2,300	51,390	(1) 120,137
1911 ..	15,753	22,028	5,300	22,600	2,900	1,500	46,332	(2) 110,313
1910 ..	15,190	22,869	5,800	17,550	3,000	1,300	47,250	(3) 107,259
1909 ..	16,035	21,643	5,600	18,000	3,000	.....	43,484	(4) 103,262
1908 ..	16,389	22,848	*4,100	*16,000	1,700	.....	35,131	96,168
1907 ..	16,697	21,984	*3,400	*14,200	.....	.....	36,917	93,198
1906 ..	14,484	21,532	4,900	*13,380	.....	.....	42,930	97,226
1905 ..	14,876	22,334	4,500	11,900	.....	.....	40,144	93,754
1904 ..	14,127	24,572	4,000	11,900	.....	.....	37,007	91,606
1903 ..	15,301	22,125	4,500	9,800	.....	.....	39,540	91,266
1902 ..	14,806	23,595	4,500	9,750	.....	.....	35,589	88,240
1901 ..	14,730	21,210	4,500	7,600	.....	.....	33,111	81,151

* Exclusive of arrivals in the United States.

(a) Deducting 9,300 tons Straits, etc., from Continent, English, etc., arriving in the United States.
(1) Deducting 8,570 tons Straits, etc., from Continent, English, etc., arriving in the United States.
(2) Deducting 6,100 tons English, Bolivian, etc., arriving in the United States.
(3) Deducting 5,700 tons English, Bolivian, etc., arriving in the United States.
(4) Deducting 4,500 tons English, Bolivian, etc., arriving in the United States.

TIN SHIPMENTS FROM THE STRAITS.

Monthly shipments of Tin from the Straits Settlements to Europe and the United States, as per Powell's returns; in tons of 2,240 pounds.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	4,950	5,233	5,988	4,669	5,233	5,733	5,895	4,290	4,018	6,050
February ...	4,716	4,527	4,399	4,625	5,422	4,033	4,147	4,290	5,260	4,660
March	3,476	4,169	3,860	4,275	4,702	3,380	2,877	4,510	5,150	4,810
April	5,450	4,613	4,893	3,729	3,323	4,904	4,025	3,140	4,290	4,400
May	4,805	4,661	5,299	5,128	6,780	5,184	4,965	4,310	5,760	6,160
June	5,138	5,078	4,549	5,077	4,821	4,618	4,120	5,050	4,290	4,820
July	4,442	4,158	4,125	4,960	4,558	5,644	5,040	4,660	4,580	4,770
August	4,732	5.752	4,842	5,006	6,057	4,702	5,700	4,680	5,210	6,030
September .	4,319	4,916	4,911	3,930	4,170	5,081	4,220	5,150	5,430	5,160
October ...	4,993	3,915	4,667	4,101	4,542	3,801	4,480	4,350	4,450	5,020
November .	5,401	4,933	4,377	3,273	5,931	5'510	4,840	5,070	5,600	5,560
December ..	5,070	4,897	5,218	3,668	4,985	5,835	4,270	5,970	4,980	5,110
Total	57,492	56,852	57,138	52,441	60,524	58,425	54,579	55,470	59,018	62,550
Average ...	4,791	4,738	4,761	4,370	5,043	4,869	4.548	4,622	4,918	5,213

BANKA SALES.

Results of auction sales of Banka tin in Holland:

1910—	Total Slabs.	Average Price.	Equal C. I. F. New York.
Jan. 26	65,031	88½	32.40
Mar. 31	64,640	92½	33.85
May 25	64,891	90¼	33.00
July 28	65,000	89¾	32.80
Sept. 28	64,500	94¾	34.62½
Nov. 25	65,094	99⅞	36.50
Total	389,156	— about 13,500 tons	
1911—			
Jan. 26	71,860	115⅞	42.35
Mar. 29	72,680	111⅞	40.87½
May 31	72,045	117¾	43.00
July 26	71,901	113	41.25
Sept. 27	71,996	107⅝	39 30
Nov. 30	71,929	124¾	45 50
Total	432.411	— about 15,000 tons	
1912—			
Jan. 25	76,099	116½	42.60
Mar. 27	76,000	120½	43.95
May 30	76,786	119¾	43.70
July 31	76,612	125¾	45.87½
Sept. 25	76,000	134¼	49.00
Nov. 28	78,300	135⅞	49.55
Total	459,797	— about 16,000 tons	
1913—			
Jan. 29	71,564	137¼	50.00
Mar. 27	71,202	131¾	48.00
May 28	73,634	135⅝	49.45
July 30	73,000	111⅜	40.60
Sept. 25	70,240	116⅛	42.30
Nov. 27	73,520	109¾	40.00
Total	433,160	— about 14,800 tons	

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Canonsburg, Pa.

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Our brands are standard and our customers are our best references.

750,000 Base Boxes Per Annum

Direct and personal supervission of the management ensures prompt and accurate attention to the trade.

ENQUIRIES SOLICITED.

CONSUMPTION OF TIN IN THE UNITED STATES.

Monthly deliveries of Tin in the United States exclusive of Pacific Coast.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	2,300	3,400	3,900	3,950	1,500	3,200	3,500	3,200	3,700	3,700
February ..	2,800	3,100	3,000	2,600	2,400	2,700	3,600	3,800	4,050	3,500
March	3,600	4,000	3,850	3,900	3,150	3,900	4,000	5,100	4,000	5,900
April	3,900	2,900	3,850	3,650	3,000	3,200	4,100	3,300	5,400	3,450
May	3,000	3,400	3,150	2,500	4,000	3,900	3,600	3,400	4,250	3,350
June	3,500	3,600	3,250	3,050	3,000	3,200	5,000	2,900	2,850	3,800
July	2,600	3,200	3,100	3,800	2,300	3,600	3,800	4,300	5,150	3,900
August	3,000	2,900	3,100	3,200	2,600	3,300	3,700	3,800	4,300	3,600
September .	2,700	2,700	3,900	2,800	2,300	3,200	3,300	4,200	3,600	3,100
October ...	2,500	3,100	3,600	2,800	3,000	4,100	3,350	3,500	3,850	3,700
November .	2,800	3,600	3,150	1,550	3,300	4,000	3,800	3,100	4,300	2,800
December ..	2,600	2,700	3,350	1,200	2,850	3,200	3,600	3,700	4,050	3,100
Total	35,300	38,600	41,200	35,000	33,400	41,500	45,350	44,300	49,500	43,900
Average ...	2,941	3,216	3,433	2,916	2,783	3.458	3,779	3,692	4,125	3,658

TIN DELIVERIES IN LONDON.

Compiled from the monthly statistics of the New York Metal Exchange.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	724	1,399	1,448	1,311	1,721	1,417	1,445	1,135	1,508	1,506
February ..	884	1,187	1,139	1.009	1,192	1,356	1,410	1,315	1,496	1,765
March	1,068	1,296	1,343	1,646	1,231	1,390	1,259	1,445	1,666	1,879
April	1,149	998	875	1,431	1,602	1,258	1,094	1,136	1,279	1,002
May	1,266	1,439	1,072	1,171	1,381	1,572	1,264	1,031	1,672	1,371
June	1,221	1,697	1,261	1,295	1,559	1,322	1,596	923	1,061	1,511
July	1,511	993	1,214	1,583	1,375	1,409	1,327	1,386	1,780	1,799
August ...	1,258	878	1,095	1,380	1,048	1,033	894	972	1,635	1,286
September.	1,577	1,537	1,388	1,388	1,555	1,259	1,136	1,700	1,436	1,451
October ..	1,538	1,067	1,471	1,596	1,321	1,364	1,184	1,508	1,947	1,645
November.	1,126	1,659	1,281	1,391	1,081	1,349	1,292	1,615	1,720	1,318
December .	805	726	987	1,496	1,323	1,306	1,289	1,587	1,400	1,364
Total ..	14,127	14,876	14,574	16,697	16,389	16,035	15,190	15,753	18,600	17,897
Average ..	1,177	1,239	1,214	1,391	1,366	1,336	1,266	1,313	1,550	1,491

TIN DELIVERIES IN HOLLAND.

Compiled from the monthly statistics of the New York Metal Exchange.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	1,090	1,333	1,079	932	770	1,152	1,118	1,335	1,521	1,192
February ..	1,435	918	870	1,162	1,445	1,026	1,174	1,241	1,858	1,308
March	1,324	958	1,249	611	1,053	1,097	1,253	1,075	1,002	935
April	1,474	1,412	808	1,588	1,049	976	1,273	1,159	1,422	1,584
May	1,047	1,106	1,130	813	971	945	1,129	1,135	720	968
June	1,652	1,170	1,044	1,185	1,162	1,069	1,308	1,216	2,021	1,471
July	1,187	832	922	499	770	990	1,090	1,604	593	758
August	1,568	1,268	936	1,647	1,345	1,086	1,222	1,337	2,080	2,027
September .	768	963	902	887	1,213	1,050	1,342	1,278	1,440	1,342
October ...	1,443	1,283	1,075	1,309	1,129	1,171	1,393	1,605	1,809	1,411
November .	1,195	1,042	681	1,059	983	1,134	1,210	565	1,035	1,001
December ..	1,149	858	910	1,166	902	967	1,366	1,260	1,687	1,525
Total	15,332	13,143	11,606	12,858	12,792	12,663	14,878	14,810	17,188	15,522
Average ...	1,278	1,095	967	1,071	1,066	1,055	1,240	1,234	1,432	1,294

Established 1881

C. S. Trench & Co.

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Headquarters for "D. S. C." brand Bolivian tin.

Special attention to supplying buyers' particular requirements in Banca Tin, English Lamb & Flag Tin, Chinese Tin and any other special quality of Tin obtainable either from spot stock or for importation.

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Complete telegraphic reports of important market movements sent by special arrangement in code of ten words.

Correspondence solicited on every phase of the metal situation.

VISIBLE SUPPLY OF TIN.

Total visible supply of tin at the end of each month.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	17,115	15,645	14,286	13,462	14,986	21,895	23,024	18,616	16,707	13,971
February ..	16,450	14,911	13,414	13,189	14,760	20,746	21,288	17,260	14,996	12,304
March	15,662	14,592	11,848	13,130	15,385	19,208	20,203	16,682	15,694	11,132
April	13,695	13,063	11,104	9,839	13,241	18,825	17,932	14,441	11,893	9,822
May	14,609	12,967	12,607	12,015	15,424	19,208	18,998	15,938	14,345	13,710
June	13,780	11,938	11,956	11,876	14,155	18,208	15,700	16,605	12,920	11,101
July	13,818	12,270	12,184	13,025	15,962	20,244	17,433	16,707	13,346	12,063
August	12,480	12,572	12,840	11,865	17,257	19,182	17,943	16,619	11,285	11,261
September .	13,159	14,508	12,209	12,498	18,109	21,419	18,999	16,672	13,245	12,943
October ...	12,194	12,812	11,162	11,072	17,524	18,724	18,183	14,161	10,735	11,857
November .	14,412	13,174	12,395	12,840	19,953	20,025	18,875	16,630	12,348	14,470
December ..	14,768	13,451	12,998	12,058	19,928	20,918	17,194	16,514	10,977	13,893
Average ...	14,345	13,492	12,417	12,239	16,390	19,883	18,815	16,404	13,207	12,377

If You Produce

TIN SCRAP

Write to

GOLDSCHMIDT
DETINNING
COMPANY

60 Wall Street
NEW YORK

WORLD'S STOCKS OF TIN.

Stocks of tin in London, Holland and the United States (exclusive of Pacific Coast) at the close of each month, in tons of 2,240 pounds.

	1909.	1910.	1911.	1912.	1913.
Jan. .	14,376	14,906	11,940	10,475	4,648
Feb. .	11,963	13,095	9,149	6,494	3,779
Mar..	14,207	13,534	9,219	7,006	4,780
April	11,883	12,377	9,397	6,700	4,029
May .	11,507	11,855	10,205	7,383	5,962
June.	11,320	9,459	8,791	5,250	3,564
July..	11,580	8,491	9,426	6,229	5,332
Aug..	12,067	10,032	7,403	3,706	3,472
Sept..	13,486	11,717	10,131	5,566	6,218
Oct. .	12,534	11,334	8,925	5,447	4,999
Nov. .	12,749	11,865	9,660	5,466	6,741
Dec. .	11,116	11,169	9,195	4,287	6,384

STOCKS OF TIN IN THE UNITED STATES.

Stocks of Tin in the United States, exclusive of Pacific ports, on the first of the month, compiled from monthly statistics.

	1908.	1909.	1910.	1911.	1912.	1913.
Jan.	1,094	2,862	1,881	854	1,494	1,759
Feb.	826	3,559	3,371	1,707	924	1,951
Mar.	343	2,316	3,569	1,227	1,987	1,767
Apr.	855	3,708	3,294	1,992	2,061	2,422
May	1,135	2,877	3,544	3,252	3,065	2,094
June	1,166	2,849	1,994	2,044	2,005	1,154
July	1,543	3,119	1,449	966	1,263	1,474
Aug.	1,390	2,366	693	1,053	1,339	1,408
Sep.	2,092	2,607	1,798	915	1,279	2,542
Oct.	2,159	3,527	1,086	2,075	990	2,357
Nov.	1,674	3,617	2,143	1,769	2,645	2,034
Dec.	2,193	2,337	1,674	898	1,559	2,199

TYPICAL TIN ANALYSES.

	Tin.	Antimony.	Arsenic.	Lead.	Bismuth.	Copper.	Iron.	Silver.	Sulphur.	
Banca Tin	99.950	.007	nil	trace	nil	.018	.045	nil	trace	
Billiton Tin	99.960	.006	nil	nil	nil	.023	nil	nil	nil	
Penang Tin	99.939	trace	.013	trace	nil	.016	.028	nil	.004	
Singapore Tin	99.870	.008	.045	.034	.003	.052	.003	.006	.005	
Mt. Bischoff	99.795	.015	.063	.037	.005	.035	.042	trace	.008	
Pyrmont Tin	99.938	.017	.019	trace	nil	.022	trace	nil	.004	
Irvine Bank	99.580	.062	.034	.221	.025	.126	.002	.018	.004	
Williams, Harvey & Co. No. 1	99.860	.015	.040	.004	.005	.047	.003	nil	.006	
Williams, Harvey & Co. No. 2	99.560	.166	.037	.162	.007	.050	.005	trace	.013	
Williams, Harvey & Co. No. 2a	99.350	.245	.065	.223	.015	.042	.016	trace	.013	
Williams, Harvey & Co. No. 3	99.200	.300	.037	.396	.007	.100	.013	.014	.006	
Williams, Harvey & Co. No. 4	99.941	.011	.022	trace	.001	.020	trace	trace	.005	
Penpoll No. 1	99.720	.118	.054	.041	.007	.052	.004	.009	.007	
Penpoll No. 2	98.710	.569	.042	.546	.055	.103	.007	.015	.004	
Penpoll No. 3	99.300	.325	.056	.212	.050	.088	.002	.021	.009	
									Cobalt	Sulphur
Redruth	99.160	.176	.058	.177	.017	.445	.014	.006	.012	.008
Th. Goldschmidt No. 1	99.860	.004	nil	.102	nil	.043	trace	nil	trace	
Th. Goldschmidt No. 2	99.460	.015	nil	.425	nil	.069	trace	nil	trace	
Th. Goldschmidt No. 3	99.150	.122	.046	.143	.112	.352	.007	.006	trace	
									Trace	and loss
Chinese No. 1	99.343	.031	.040	.434	.007	.052	.010	trace	.011	.072
Wing Hong & Co. No. 2	98.662	.039	.035	1.035	.012	.134	.014	trace	.011	.058
Wing, Hong & Co. No. 3	95.280	.381	.050	3.995	.020	.106	.026	.018	.008	.116

CLASSIFICATION OF TIN IMPORTS.

Compiled by New York Metal Exchange, in tons of 2,240 lbs.

	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Straits	29,929	32,062	35,242	36,210	36,271	41,403	38,072
Australian	388	506	728	354	198	135	295
Banca and Billiton	726	260	357	689	1,633	745	590
English	1,530	1,276	2,186	3,547	3,494	4,148	3,445
Chinese	220	20	120	907	1,005	1,461	1,322
Sundries	1,179	1,044	1,886	2,616	2,339	1,404	1,085
Total	33,972	35,168	40,519	44,323	44,940	49,296	44,809

The Value of Bearing Castings Depends on What They Will Do.

The reason why so many large railway companies use More-Jones products is that these products have demonstrated in actual service a vastly superior efficiency, having a real dollars and cents **value.**

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is due not merely to the use of excellent materials and painstaking workmanship but also to **revolutionary improvements in methods of casting.** Railway companies who have made accurate comparative tests have demonstrated beyond question that our patented method of casting in metallic molds more than doubles the efficiency and life of this equipment.

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We are always willing to prove our case.

MORE-JONES BRASS and METAL CO.

ST. LOUIS, MO.

PIG TIN PRICES IN NEW YORK.

Extreme fluctuations and yearly average price of Pig Tin in New York:

Year.	Highest.	Lowest.	Average.
1884	19.75	16.00	18.10
1885	23.50	16.10	19.50
1886	23.25	20.45	21.55
1887	37.25	21.90	24.85
1888	37.25	16.90	26.20
1889	22.25	19.50	20.93
1890	25.10	19.50	21.42
1891	22.00	19.50	20.25
1892	22.15	19.40	20.60
1893	21.25	18.15	20.14
1894	20.45	13.45	18.08
1895	15.15	13.00	14.06
1896	13.70	12.62½	13.24
1897	14.12½	13.00	13.60
1898	19.00	13.70	15.64
1899	33.12½	19.87½	27.19
1900	35.00	25.20	30.00
1901	33.50	23.12½	26.94
1902	30.62½	22.60	26.95
1903	30.80	24.95	28.19
1904	30.12½	25.75	28.08
1905	36.45	28.65	31.55
1906	50.00	35.65	39.82
1907	44.10	26.00	38.34
1908	32.37½	26.45	29.54
1909	34.12½	27.30	29.76
1910	38.75	31.75	34.27
1911	48.50	37.60	42.68
1912	51.05	42.05	46.43
1913	51.00	36.75	44.32
Average price for 30 years			26.41

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Manufacturers of

TIN and LEAD PRODUCTS

Solder, Babbitt and Type Metals a Specialty.

Smelters of White Metal Drosses

BALTIMORE, MD.

ESTABLISHED 1854

DICKERSON, VAN DUSEN & CO.

Tin Plates and Metals

32 Cliff Street, :: New York

PIG TIN PRICES IN NEW YORK.

Average monthly prices of Straits Tin in New York.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	28.98	29.54	36.49	41.67	27.53	28.13	32.74	41.39	43.24	50.45
February .	28.31	29.37	36.48	42.28	29.10	28.30	32.96	42.83	43.46	48.73
March	28.31	29.59	36.64	41.52	30.66	28.74	32.49	40.76	42.86	46.88
April	28.16	30.62	38.90	41.09	31.86	29.48	33.02	42.20	44.02	49.12
May	27.89	30.16	43.36	43.21	30.09	29.16	33.18	43.10	46.12	49.14
June	26.43	30.41	39.20	42.37	28.13	29.32	32.84	46.16	47.77	44.93
July	26.57	31.87½	37.32	41.26	29.20	29.17	33.04	42.96	44.75	40.39
August ...	27.05	32.97	40.57	37.82	29.97	30.04	34.10	43.45	45.87	41.72
September.	27.79	32.16	40.38	36.89	28.88	30.35	35.23	39.98	49.18	42.47
October ..	28.72	32.55	42.74	32.74	29.47	30.50	36.63	41.21	50.11	40.50
November.	29.32	33.50	42.93	30.98	30.40	30.90	36.68	43.13	49.90	39.81
December .	29.39	35.85	42.80	28.23	29.18	33.06	38.28	44.97	49.90	37.64
Average ..	28.08	31.55	39.82	38.34	29.54	29.76	34.27	42.68	46.43	44.32

FOREIGN TIN PRICES.

Yearly fluctuations of Pig Tin in London, (in pounds Sterling, per gross ton):

Year.	Opening.	Highest.	Lowest.	Closing.
1850	£ 78	£ 85	£ 70	£ 83
1851	83	88	78	82
1852	82	98	77	98
1853	98	125	97	125
1854	125	126	105	111
1855	111	130	104	130
1856	130	143	126	143
1857	143	150	95	100
1858	100	125	100	125
1859	125	142	125	135
1860	135	135	129	130
1861	130	130	110	117
1862	117	119	110	117
1863	117	128	113	114
1864	114	120	87	91
1865	91	97	87	95
1866	95	95	75	85
1867	85	91	83	87
1868	87	109	87	108
1869	109	140	108	109
1870	109	135	103	132
1871	132	157	123	144
1872	144	160	130	138
1873	140	148	114	117
1874	117	121	87	95
1875	95	96	76	80
1876	80	81	70	75
1877	75	76	64	66
1878	66	66	*52½	61
1879	61	96	59	92
1880	92	101	68	91

FOREIGN TIN PRICES.

Yearly fluctuations of Tin in London (in pounds Sterling, per gross ton):

Year.	Opening.	Highest.	Lowest.	Closing.
1881	£92	£110	£ 86	£109
1882	108	114	92	92
1883	93	99	83	86
1884	85	87	73	75
1885	75	97	74	93
1886	93	103	92	100
1887	100	167	100	167
1888	168	170	75	100
1889	99	100	88	97
1890	98	104	88	91
1891	91	94	89	90
1892	91	103	88	91
1893	91	95	74	74
1894	73½	74	60⅞	60⅞
1895	60½	68⅞	58⅝	59
1896	58¾	67¾	56	58⅜
1897	58½	63⅝	58½	62⅞
1898	63	86 1/16	62⅝	86 1/16
1899	87¼	150⅜	86½	111¾
1900	115	153	108¼	121¾
1901	121½	140	100	106¼
1902	105¾	137¼	100¼	120⅜
1903	120⅜	141½	111¾	132⅞
1904	133½	136½	116¾	134
1905	132⅛	165⅝	129¾	160⅝
1906	161½	215	161½	193½
1907	191¾	200	115½	123½
1908	121	146¾	118	132
1909	132¼	154	123¾	153¼
1910	152⅜	176¼	143½	174⅞
1911	178½	**233	169¾	205
1912	201	233	183¾	229½
1913	229½	232	166½	169¼

* Lowest. ** Highest.

FOREIGN TIN PRICES.

Average yearly price of Tin in London:

	£	s	d
1883	93	5	0d
1884	81	0	0
1885	86	12	6
1886	97	6	6
1887	111	15	0
1888	117	10	0
1889	93	0	9
1890	94	3	6
1891	91	3	0
1892	93	6	8
1893	85	7	7
1894	68	14	2
1895	63	7	1
1896	59	9	11
1897	61	8	0
1898	71	4	1
1899	122	8	7
1900	133	11	6
1901	118	12	8
1902	120	14	5
1903	127	6	5
1904	126	14	8
1905	143	1	8
1906	180	12	11
1907	172	12	9
1908	133	2	6
1909	134	15	6.
1910	155	6	2
1911	192	7	7
1912	209	6	6
1913	201	9	6

FOREIGN TIN PRICES.

Average monthly price of prompt Tin in London.

	1907.			1908.			1909.			1910.			1911.			1912.			1913.		
	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d	£	s	d
Jan.	190	4	0	123	9	0	127	7	3	148	3	6	187	17	11	191	11	9	228	5	5
Feb. ...	191	18	9	128	4	1	127	15	3	149	13	0	189	12	10	195	0	8	220	2	0
Mar. ...	188	17	6	137	19	8	130	6	7	147	4	11	182	12	4	192	12	4	213	12	11
April ...	187	1	2	143	12	10	133	8	3	149	19	3	193	0	10	200	10	3	224	9	7
May ...	191	1	10	135	11	6	131	16	10	150	1	8	197	15	4	208	18	4	224	5	5
June ...	187	10	11	127	12	2	133	4	0	148	13	1	207	7	9	205	17	3	204	4	0
July ...	188	0	2	131	6	10	131	19	1	149	2	1	193	2	0	202	8	9	183	10	0
Aug. ...	170	5	9	134	16	2	135	18	3	155	8	2	190	9	7	208	7	0	188	14	7
Sept. ...	166	6	6	131	6	8	137	14	6	160	8	7	180	16	11	223	15	3	193	1	7
Oct. ...	146	7	7	133	8	8	138	13	2	164	4	9	187	2	9	228	7	0	184	16	1
Nov. ...	138	8	8	137	8	3	140	0	3	166	18	0	194	19	4	227	12	1	180	17	4
Dec. ...	125	10	4	132	4	7	149	2	3	173	17	3	203	7	2	226	17	6	171	15	8
Average	172	12	9	133	2	6	134	15	6	155	6	2	192	7	7	209	6	6	201	9	6

The Eagle Smelting & Refining Works

B. LISSBERGER & CO., Props.

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SMELTERS OF DROSSES

OFFICE AND WORKS:

738-740 E. 14th St.,
733-739 E. 13th St., New York

U. S. LEAD PRODUCTION.

(Domestic production; tons of 2,000 lbs.)

1830-9	122,500	1890	143,630
1840-9	247,000	1891	178,554*
1850-9	168,800	1892	173,305
		1893	163,982
1860	15,600	1894	159,351
1861	14,100	1895	165,709
1862	14,200	1896	187,256*
1863	14,800	1897	207,365*
1864	15,300	1898	210,676*
1865	14,700	1899	208,466
1866	16,100		
1867	15,200	1890-9	1,798,294
1868	16,400		
1869	17,500	1900	270,824*
		1901	269,266
1860-9	153,900	1902	276,455*
		1903	290,194*
1870	17,830	1904	308,603*
1871	20,000	1905	318,509*
1872	25,880	1906	336,200*
1873	42,540*	1907	352,381*
1874	52,080*	1908	311,666
1875	59,640*	1909	352,839*
1876	64,070*		
1877	81,900*	1900-9	3,086,937
1878	91,060*		
1879	92,780*	1910	375,402*
		1911	391,995*
1870-9	547,780	1912	392,517*
		1913	412,471*
1880	97,825*		
1881	117,085*		
1882	132,890*	* Record years.	
1883	143,957*		
1884	139,897		
1885	129,412		
1886	130,629		
1887	145,700*		
1888	151,919*		
1889	156,397*		
1880-9	1,345,711		

PRODUCTION OF LEAD IN THE UNITED STATES.

Production of primary lead in the United States, according to source of ore. The figures given below represent the lead content of the ore and not the actual recovery. (Tons of 2,000 lbs.)

	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Arizona	2,884	2,418	1,464	1,507	948	3,428	3,891
Colorado	50,497	52,552	28,729	30,865	38,542	30,442	37,039
Idaho	117,117	123,292	98,464	103,747	109,951	117,335	127,780
Kansas	1,932	1,798	2,293	2,763	1,308	2,522	1,937
Missouri	111,075	122,856	122,451	141,105	161,659	182,203	162,610
Montana	2,485	2,145	2,320	1,451	1,943	2,484	2,517
Nevada	1,669	3,480	3,796	4,792	2,246	1,082	5,699
New Mexico	640	2,047	586	1,350	1,890	1,371	2,511
Oklahoma	.....	404	1,409	2,268	1,805	1,925	2,500
Utah	56,260	55,540	42,455	66,648	60,605	54,933	60,664
Wisconsin	1,753	3,573	4,013	3,252	3,909	3,966	3,301
Other States	1,788	3,104	1,492	1,836	2,168	2,185	1,815
Zinc residues	2,053	1,890	1,290	1,735	2,237	1,987	3,131
Total	350,153	375,099	310,762	363,319	389,211	405,863	415,395

PRODUCTION OF REFINED LEAD IN THE UNITED STATES.

Year.	Desilverized	Soft Lead.	Total Production.	From domestic ores and base bullion.	From foreign ores.	From Mexican base bullion.
1870	.....	17,830	17,830	17,830	.....	.....
1880	70,135	27,690	97,825	97,825	.....	.....
1890	130,403	31,351	161,754	143,630	18,124	.....
1895	201,992	39,890	241,882	165,709	76,173	.....
1900	329,658	48,021	377,679	270,824	106,855	.....
1901	323,790	57,898	381,688	269,266	112,422	.....
1902	303,011	74,050	377,061	276,455	100,606	.....
1903	295,074	83,444	378,518	290,194	88,324	.....
1904	315,284	89,169	404,453	308,603	95,850	.....
1905	313,847	85,455	399,302	318,509	80,793	.....
1906	313,886	90,860	404,746	336,200	28,803	39,743
1907	313,588	99,801	413,389	352,381	24,041	36,967
1908	295,552	101,012	396,564	311,666	11,509	73,389
1909	329,751	117,158	446,901	352,839	21,754	72,316
1910	328,954	141,318	470,272	375,402	18,065	76,805
1911	331,032	155,947	486,979	391,995	10,764	84,220
1912	339,646	141,248	480,894	392,517	11,572	76,805
1913	310,830	156,013	466,843	412,471	54,372	

WORLD'S PRODUCTION OF PIG LEAD.

According to the Metallgesellschaft, in metric tons.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Spain ...	177,800	180,700	180,900	185,900	183,300	184,000	191,900	175,100	186,700
Germany	137,600	152,600	150,700	142,300	164,100	167,900	159,900	161,300	*165,000
France ..	18,800	24,100	25,600	24,800	26,100	26,900	20,200	23,600	*33,000
Gt. Britain	24,400	23,300	24,000	27,500	29,700	28,200	29,600	26,000	29,000
Belgium .	23,500	22,900	23,800	27,500	35,700	40,300	40,700	44,300	57,100
Italy	23,500	19,100	21,300	23,000	26,000	22,100	14,500	16,700	20,500
Aust.-Hun.	13,100	13,500	16,400	15,000	14,600	14,000	17,500	19,600	21,400
Greece ..	15,200	13,700	12,100	13,800	16,000	15,300	16,800	14,300	14,500
Sweden .	600	600	800	800	300	200	400	1,100	1,300
Russia ..	*300	*300	*300	*100	*100	800	1,200	1,000	*1,000
Servia ...	.....	.....	.....	.....	1,500	1,400	.....	.....	.....
T'key,Asia	10,700	10,400	9,600	10,400	11,800	12,100	12,700	12,400	12,500
U. S.	302,300	297,100	343,700	359,400	292,300	349,200	369,400	377,900	386,700
Mexico .	83,900	*75,000	*54,000	*72,000	*110,000	118,000	120,700	124,600	*120,000
Canada .	17,200	25,700	24,800	12,100	17,100	20,800	15,000	10,700	16,300
Japan ...	1,800	2,300	2,800	3,000	2,900	3,400	3,500	4,200	*4,500
Australia	119,400	107,000	93,000	97,000	119,000	77,200	98,800	99,600	107,400
Other ...	300	200	200	800	500	5,800	15,700	20,500	12,200
Total .	970,400	968,500	984,000	1,015,400	1,051,000	1,087,600	1,128,500	1,132,900	1,189,100

WORLD'S CONSUMPTION OF LEAD.

According to the Metallgesellschaft, in metric tons.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Germany	175,800	198,600	194,900	189,500	211,300	213,200	210,400	229,800	*220,500
Gt. Britain	237,100	213,500	194,100	194,500	228,400	202,700	208,400	198,300	196,100
France ..	82,200	86,300	85,900	83,700	104,100	102,300	89,800	99,600	106,500
Russia ..	40,800	41,400	25,000	34,200	44,700	38,400	48,800	43,100	45,600
Belgium .	28,000	28,100	24,300	33,200	26,200	43,600	32,000	53,600	50,800
Italy	26,100	24,900	30,300	30,700	36,500	31,400	28,200	36,300	32,000
A'tria-Hun.	20,600	19,900	23,800	24,800	28,900	31,000	31,500	36,200	37,900
Holland est.	5,000	5,000	5,000	5,200	5,400	5,900	6,500	6,800	6,300
Switzerland	4,000	3,700	5,300	5,300	5,900	5,300	5,900	5,000	6,400
Other European ..	2,600	3,400	3,000	4,000	4,000	4,000	4,300	3,500	4,400
U. S. ...	297,300	298,100	348,100	353,300	291,400	339,900	378,900	365,200	397,800
Canada .	5,400	12,900	20,000	14,200	13,700	21,400	17,800	21,100	30,000
Japan ...	9,500	15,800	14,300	9,500	9,600	11,500	16,500	18,900	*24,500
Australia	5,500	6,000	4,500	5,500	7,700	4,900	7,200	9,100	10,100
Other ...	10,100	10,600	13,300	20,300	24,700	23,800	30,200	31,200	*30,000
Total .	950,000	968,200	991,800	1,007,900	1,042,500	1,079,300	1,116,400	1,157,700	1,198,900

* Estimated.

CONSUMPTION OF LEAD.

Consumption of Lead in the United States, according to Government returns, tons of 2,000 pounds.

Stock at beginning of year:	1901.	1902.	1903.	1904.	1905.	1906.
Domestic	39,050	53,733	11,595	(b)	(b)	3,975
Foreign in bond	21,190	16,613	23,909	10,694	11,481	56
Production, refined	381,688	377,061	378,518	404,453	403,019	415,215
Imports, foreign refined	538	1,544	1,707	696	979	11,763
Total available	442,466	448,951	415,729	415,843	415,479	431,009
Stock at close of year:						
Domestic	53,733	11,595	9,199	(b)	(b)	4,751
Foreign in bond	16,613	23,909	10,694	11,481	8,148	64
Exports, foreign refined (a)	97,100	76,962	90,353	79,596	54,295	48,558
Exports, manufactures under drawback	3,086	4,001	5,316	5,223	6,021	1,516
Total withdrawn	170,532	116,467	115,562	96,300	68,464	54,709
Apparent domestic consumption	271,934	332,484	300,167	319,543	347,015	376,300

(a) Foreign base bullion and ores refined in bond and exported.
(b) Complete statistics not available.

CONSUMPTION OF LEAD IN THE UNITED STATES.

Compiled by U. S. Geological Survey, under new system.

SUPPLY—	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Stock in bond Jan. 1st.	5,756	12,944	18,565	17,405	35,972	4,481	10,492
Imports—							
For consumption	15,246	9,805	18,036	15,359	13,281	14,146	.....
For export	64,569	102,241	96,145	93,249	76,671	69,414	56,717
Domestic production	352,381	311,666	352,839	375,402	391,995	392,517	412,471
Total supply	437,952	436,656	485,585	501,415	517,919	480,558	479,680
WITHDRAWN—							
Exports of foreign lead	51,447	76,857	86,077	69,786	101,227	64,906	44,000
Exports of foreign lead in manufactures under drawback	8,268	9,254	4,796	8,800	12,080	11,320	7,214
Decrease by liquidation	4,578	13,425	8,643	7,661	14,812	5,692	391
Stocks in bond Dec. 31st	12,944	18,565	17,405	35,972	4,481	10,492	6,301
Total withdrawn	77,237	118,101	116,921	122,219	132,600	92,410	57,906
Available for consumption	360,715	318,555	368,664	379,196	385,319	388,148	421,774

RIGHT QUALITY AT RIGHT PRICE

Solder, Babbitts, Type Metals,
White Metal Alloys,
Lead, Tin, Spelter, Antimony

made by

MARKS LISSBERGER & SON, Inc.
Long Island City, N. Y.

¶¶ For a half century we have been acknowledged to set the Standard of Quality for SOLDER which we make in every form, shape and mixture.

LEAD PRICES IN NEW YORK.

Highest, lowest and average prices of Pig Lead in New York:

Year.	Highest.	Lowest.	Average.
1884	4.50	3.37½	3.74
1885	4.67	3.55	3.95
1886	4.95	4.00	4.63
1887	5.15	4.15	4.50
1888	5.25	3.60	4.42
1889	4.10	3.62½	3.93
1890	5.25	3.77½	4.48
1891	4.62½	4.05	4.35
1892	4.22½	3.72½	4.09
1893	4.15	3.22½	3.73
1894	3.65	3.02½	3.29
1895	3.55	3.02½	3.23
1896	3.25	2.67½	2.98
1897	4.40	3.00	3.58
1898	4.12½	3.55	3.78
1899	4.77½	3.92½	4.47
1900	4.75	3.75	4.41
1901	4.37½	4.00	4.36
1902	4.15	4.00	4.10
1903	4.70	4.10	4.26
1904	4.60	4.10	4.32
1905	6.25	4.45	4.70
1906	6.35	5.35	5.66
1907	6.35	3.50	5.35
1908	4.60	3.65	4.23
1909	4.75	3.95	4.30
1910	4.75	4.37½	4.49
1911	4.60	4.25	4.46
1912	5.15	4.00	4.48
1913	4.85	4.00	4.40
Average price, 30 years			4.22

¶ "Old Coketown" is our registered Trade Mark. It is on every bar of Babbitt Metal that we make—put there for your protection—so you can distinguish our Babbitts from inferior makes. This is not a name for a Babbitt but a Trade Mark—a guarantee to you that when you buy any one of our brands you are getting a metal that cannot be surpassed. It will pay you to INSIST on Babbitt Metal bearing—"Old Coketown."

Sold Everywhere—Insist.

Made only by the

Riverside Metal Refining Company

CONNELLSVILLE, PA.

LEAD PRICE CHANGES.

American Smelting & Refining Co.'s quotations for 50 ton lots f.o.b. New York:

1905.

Opening price 4.60
Jan. 23, ... 4.45
Mar. 20, ... 4.50
July 25, ... 4.60
Aug. 24, ... 4.85
Nov. 1, ... 5.15
" 16, ... 5.25
Dec. 4, ... 5.35
" 21, ... 5.60

1906

Feb. 14, ... 5.35
April 20, ... 5.50
May 3, ... 5.60
" 12, ... 5.75
Dec. 13, ... 6.00

1907.

June 3 ..... 5.75
July 3, ... 5.25
Sept. 6, ... 4.75
Nov. 18, withdrawn.

1908.—Open market.

1909.

Opening price 4.20
Feb. 5, ... 4.10
" 23, ... 4.00
Mar. 29, ... 4.10
April 12, ... 4.15
" 15 ..... 4.20
May 6, ... 4.25
" 12, ... 4.30
" 27, ... 4.35
Aug. 12, ... 4.40
Dec. 9, ... 4.50
" 15, ... 4.60
Dec. 20 ..... 4.70

1910.

Mar. 14, ... 4.60
" 21, ... 4.50
May 4, ... 4.45
" 10, ... 4.40
Nov. 18, ... 4.50

1911.

Oct. 5, ... 4.35
" 10, ... 4.25
Nov. 10, ... 4.35
" 27, ... 4.45

1912.

Jan. 30, ... 4.25
Feb. 3, ... 4.10
" 5, ... 4.00
Mar. 20, ... 4.10
" 21 ..... 4.20
June 12, ... 4.50
July 3, ... 4.75
Aug. 5, ... 4.50
" 26, ... 4.65
" 30, ... 4.85
Sept. 9, ... 5.10
Nov 4, ... 4.75
" 21, ... 4.50
Dec. 3, ... 4.35

1913.

April 22 ..... 4.50
May 5 ..... 4.35
July 29 ..... 4.50
Aug. 15 ..... 4.75
Oct. 1 ..... 4.60
" 8 ..... 4.50
" 16 ..... 4.35
Nov. 26 ..... 4.25
Dec. 2 ..... 4.10
" 9 ..... 4.00
" 24 ..... 4.10
" 29 ..... 4.15

Henry Greve, Pres.
Edwin J. Greve, Treas.
Robt. F. Greve, Sec.

JOHN WAHL COMMISSION CO.

Established 1860 — Incorporated 1890

Pierce Building
ST. LOUIS, MO.

PIG LEAD

SPELTER

¶ Please ask us for Prices when you are ready to buy.

LEAD PRICES IN ST. LOUIS.

Average monthly price of Soft Missouri Lead in St. Louis.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	4.34⅛	4.48⅛	5.80	6.09	3.64	4.07⅛	4.60⅛	4.36	4.34	4.20
February .	4.33	4.35	5.41	6.09⅛	3.65⅛	3.90	4.50	4.29⅛	3.99	4.20
March	4.42⅛	4.41⅛	5.28	6.08	3.71	3.86⅛	4.36	4.25	4.06	4.21
April	4.42	4.49	5.38	5.94	3.89	4.09	4.24⅛	4.29	4.14	4.25⅛
May	4.35	4.45	5.84	5.92⅛	4.13	4.22	4.19⅛	4.24	4.09	4.22
June	4.11⅛	4.44	5.91	5.67⅛	4.38⅛	4.35	4.22	4.30	4.31	4.21
July	4.10⅛	4.52	5.70	5.15	4.33	4.24	4.30	4.42	4.60	4.25
August ...	4.04⅛	4.62⅛	5.69	4.96⅛	4.47⅛	4.25	4.31	4.43⅛	4.46	4.56
September.	4.14	4.77⅛	5.83	4.66	4.39	4.26	4.29	4.37	4.94	4.62
October ..	4.16⅛	4.99⅛	5.89	4.51	4.23⅛	4.26	4.27	4.18	4.91	4.31
November.	4.34	5.33	5.88	4.30⅛	4.30⅛	4.27	4.33	4.23	4.50	4.18
December .	4.56	5.80	5.96	3.70⅛	4.10	4.51	4.38	4.36	4.19	3.94
Average ..	4.27⅛	4.72	5.71⅛	5.25⅛	4.10	4.19	4.33	4.31	4.38	4.26

Highest Quality **Capacity Unlimited**

Ferro-Alloys
Primos Vanadium
Primos Tungsten
Primos Molybdenum
Primos Cobalt
Primos Boron Alloy

Primos Chemical Co.
Primos, Del. Co., Pa.

Reliable Analyses OF

METALS, ALLOYS
and BY-PRODUCTS

Special Attention to

RED and WHITE METALS

¶ Yearly Contracts for Plants at Lowest Rates.

C. L. CONSTANT CO.
42 New Street, New York City

LEAD PRICES IN NEW YORK.

Average monthly price of Pig Lead, New York delivery, based on American Smelting & Refining Co.'s quotations, 50 ton lots, except for period Oct. 31, 1907 to Dec. 31, 1908.

	1904.	1905.	1906.	1907.	*1908.	1909.	1910.	1911.	1912.	1913.
January ...	4.33½	4.56	5.60	6.00	3.77½	4.20	4.70	4.50	4.44	4.35
February .	4.40	4.45	5.47½	6.00	3.77	4.10	4.70	4.50	4.04	4.35
March	4.50	4.47	5.35	6.00	3.86	4.00½	4.61	4.50	4.07	4.35
April	4.50	4.50	5.40	6.00	4.02½	4.15½	4.50	4.50	4.20	4.40
May	4.42	4.50	5.67	6.00	4.25	4.28	4.42	4.50	4.20	4.36
June	4.22	4.50	5.75	5.75	4.50	4.35	4.40	4.50	4.39½	4.35
July	4.18	4.52	5.75	5.28	4.49	4.35	4.40	4.50	4.73	4.37
August ...	4.10	4.65½	5.75	5.25	4.58	4.38	4.40	4.50	4.56½	4.63
September.	4.20	4.85	5.75	4.85	4.54½	4.40	4.40	4.50	5.05	4.75
October ..	4.20	4.85	5.75	4.75	4.39	4.40	4.40	4.30	5.10	4.45
November.	4.20	5.20	5.75	*4.47½	4.39	4.40	4.44	4.32	4.69	4.34
December .	4.60	5.42	5.90	*3.82	4.25	4.56	4.50	4.45	4.36	4.06
Average ..	4.32	4.70½	5.65¾	5.34¾	4.23½	4.29¾	4.49	4.46	4.48½	4.40

* Based on open market.

The Monarch Crusher and Pulveriser

For reclaiming brass from brass ashes, skimmings, etc.

MADE IN THREE SIZES

Patented July 3, 1906, July 16, 1907

Patents pending

These crushers are furnished with our patented steel linings and patented steel crushing rollers

O. J. MOUSSETTE CO., Inc.

BROOKLYN, N. Y.

The Trade read

THE AMERICAN METAL MARKET and DAILY IRON AND STEEL REPORT

Daily

COMPARISON OF DOMESTIC AND FOREIGN LEAD PRICES.

(Exchange—$4.85)

	Price Per Pound. New York.	London.	Difference.
1880	5.04c	3.56c	1.48c
1881	4.81	3.25	1.56
1882	4 91	3.13	1.78
1883	4.32	2.81	1.51
1884	3.74	2.59	1.15
1885	3.95	2.51	1.44
1886	4 63	2.87	1.76
1887	4.50	2.80	1.70
1888	4 42	3.02	1.40
1889	3.93	2.84	1.09
1890	4.48	2.91	1.57
1891	*4.35	2.70	1.65
1892	4.09	2.34	1.75
1893	3.73	2.07	1.66
1894	3.29	2.05	1.24
1895	3.23	2.34	.89
1896	2.98	2.43	.55
1897	3.58	2.64	.94
1898	3.78	2.82	.96
1899	4.47	3.22	1.25
1900	4.41	3.69	.42
1901	4.36	2.72	1.64
1902	4.10	2.45	1.65
1903	4.26	2.51	1.75
1904	4.32	2.60	1.72
1905	4.70	2.98	1.72
1906	5.66	3.77	1.89
1907	5.35	4.15	1.20
1908	4.23	2.93	1.30
1909	4.30	2.83	1.47
1910	4 49	2.80	1.69
1911	4.46	3.01	1.45
1912	4.48	3.89	.59
1913	4.40	4.05	.35

"TRAIL" LEAD

Smelted and Refined

FROM

British Columbian

ORES

EXCELS for PURITY

Selling Agents:

THOMAS ROBERTSON & Co. Limited

P. O. Box 2410. MONTREAL

LEAD PRICES IN LONDON.

Monthly average price of foreign lead.

	1912.			1913.		
January ...	£15	11s	2d	£17	2s	1d
February ..	15	13	9	16	11	0
March	15	19	8	15	19	6
April	16	6	6	17	12	3
May	16	10	2	18	18	2
June	17	11	7	20	4	6
July	18	8	8	20	0	9
August	19	5	7	20	8	0
September .	21	8	11	20	8	7
October ..	20	7	11	20	6	1
November .	18	4	7	19	6	3
December .	18	1	6	17	16	5
Year	17	15	10	18	14	5

Yearly fluctuations:

	High.			Low.			Average.		
1891..	£12	17s	6d	£11	5s	0d	£12	5s	10d
1892..	11	6	3	9	16	3	10	9	7
1893..	10	7	6	9	2	6	9	13	10
1894..	10	2	6	9	0	0	9	9	5
1895..	11	13	9	9	10	0	10	9	10
1896..	11	15	0	10	16	3	11	5	11
1897..	14	5	0	11	10	0	12	7	4
1898..	14	15	0	12	6	3	12	19	8
1899..	17	12	6	13	1	3	14	18	8
1900..	18	0	0	16	0	0	16	19	9
1901..	16	7	6	10	3	9	12	10	5
1902..	11	17	6	10	2	6	11	5	3
1903..	13	15	0	10	18	9	11	11	7
1904..	13	2	6	11	7	6	11	19	8
1905..	17	17	6	11	18	9	13	14	5
1906..	20	5	0	15	7	6	17	7	0
1907..	22	5	0	13	0	0	19	1	9
1908..	15	2	6	12	7	6	13	10	5
1909..	14	2	6	12	6	3	13	1	8
1910..	13	17	6	12	6	3	12	19	1
1911..	15	18	9	12	15	0	13	19	3
1912..	23	15	0	15	10	0	17	15	10
1913..	21	10	0	15	8	9	18	14	5

Beer, Sondheimer & Co.

42 Broadway,
NEW YORK.

—

SELLERS OF

Copper,
Spelter,
Antimony,
Aluminum,

ANTIMONIAL LEAD,
ZINC DUST and ARSENIC.

—

Selling Agents For

National Zinc Company,

Works at Bartlesville, Oklahoma
Springfield, Ill. Argentine, Va.

WORLD'S PRODUCTION OF SPELTER.

The figures are those of Henry R. Merton & Co., except for the United States where we have used the figures of the U. S. Geological Survey; in tons of 2,240 lbs.

	1885	1890.	1895.	1900.	1905.	1910.	1911.	1912.
Belgium	129,754	137,630	172,135	117,355	143,300	169,860	192,020	197,045
Germany—West	(a)	(a)	(a)	51,435	66,185	86,120	92,735	100,370
Germany—East	79,623	87,475	93,620	100,705	127,895	138,040	153,715	166,425
Holland	.....	.....	.....	6,845	13,550	20,645	22,375	23,555
Great Britain ..	24,299	29,145	29,495	29,830	50,125	62,085	65,900	56,330
France and Spain	14,847	18,240	22,895	41,455	49,575	58,210	63,210	70,930
Austria and Italy	5,610	7,135	8,355	6,975	9,210	13,095	16,610	18,795
Poland	5,019	3,620	4,960	5,875	7,520	8,495	9,780	11,000
Total Europe.	259,152	283,245	331,460	360,475	467,360	556,550	616,345	644,450
*United States..	36,328	56,860	80,076	110,612	182,008	240,342	255,825	302,505
Australia	.....	.....	.....	.....	.....	500	1,700	2,260
World's total.	295,480	340,105	411,536	471,087	649,368	797,392	873,870	949,215

(a) Included with Belgium. * Includes spelter made from Mexican ore.

L. Vogelstein & Co.

42 BROADWAY
NEW YORK

Sole Agents for

Williams Harvey & Co's
LAMB & FLAG TIN

Sellers of

Copper—Tin—Spelter
Lead, Antimony and
Antimonial Lead

Buyers of

Argentiferous and Auriferous
Ores, Matte, Bullion,
Lead and Zinc Ores

AGENTS FOR
Aaron Hirsch & Sohn,
Halberstadt, Germany.
United States Metal Refining Co.,
Chrome, N. J., and Grasselli, Ind.
American Zinc and Lead Smelting Co.,
Smelters, Caney, Dearing, Kas. and Hillsboro, Ill.

U. S. SPELTER PRODUCTION.

(Tons of 2,000 lbs.)

1873	7,343*	1901	140,822*
1874	10,000*	1902	156,927*
1875	15,833*	1903	159,219*
1876	16,000*	1904	186,702*
1877	17,500*	1905	203,849*
1878	19,000*	1906	224,770*
1879	21,000*	1907	249,860*
1880	23,239*	1908	210,424
		1909	255,760*
1873-80	129,915	1910	269,184*
1881	30,000*	1901-10	2,057,517
1882	33,765*		
1883	36,872*	1911	286,526*
1884	38,544*	1912	338,806*
1885	40,688*	1913	345,575*
1886	42,641*		
1887	50,340*		
1888	55,903*		
1889	58,860*		
1890	63,683*		
1881-90	451,296		
1891	80,873*		
1892	87,260*		
1893	78,832		
1894	75,328		
1895	89,686*		
1896	81,499		
1897	99,980*		
1898	115,399*		
1899	129,051*		
1900	123,886		
1891-00	961,794		

* Record years.

(Since 1904 includes spelter made from foreign ore).

AMERICAN

Zinc, Lead and Smelting Company

—:—

Boston, Mass.
St. Louis, Mo.
Carterville, Mo.
Hillsborough, Ill.
Caney and Dearing, Kas.
Mascot, Tenn.
Platterville, Wis.
Denver, Col.

SPELTER

SULPHURIC ACID

ZINC and LEAD

ORES

PRODUCTION OF PRIMARY SPELTER IN THE UNITED STATES.

Production of Primary Spelter in the United States, according to the States in which smelted, in tons of 2,000 lbs.:

	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Colorado	6,599	6,260	5,303	3,079	6,048	6,512	7,397	9,043	(a)
Illinois	46,606	47,939	56,056	50,244	67,653	73,038	83,130	88,397	105,948
Kansas	114,287	129,564	134,108	99,298	103,299	105,697	98,413	101,104	76,491
Missouri	11,844	11,077	11,732	10,201	7,037	5,571	4,116	7,085	(a)
Oklahoma	.....	.....	5,035	14,864	28,782	34,760	46,315	76,925	83,008
Eastern, Southern and other States ...	24,513	29,930	37,626	32,738	42,941	43,606	47,155	56,252	80,128
Total	203,849	224,770	249,860	210,424	255,760	269,184	286,526	338,806	345,575

(a) Included in other States.

Telephone, Monroe 3571

Sandoval Zinc Co.

General Office

410 N. PEORIA ST.
CHICAGO

Smelters of High Grade **Spelter, Pig Lead and Antimonial Lead**

Chemical Department,

East St. Louis, Illinois

Phone Bridge 1519 Lock Box 163

Manufacturers of

Soldering and Tinning Flux, in liquid form, suitable for can manufacturers, sheet iron works, etc., Tinning flux, suitable for tinplate manufacturers.

PRODUCTION OF PRIMARY SPELTER IN THE UNITED STATES.

Production of Primary Spelter according to sources of ore; in tons of 2,000 lbs.

Domestic—	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Colorado	32,456	26,077	24,885	20,121	23,238	42,233	60,841
Kansas	3,902	13,850	8,628	9,185	10,220	6,843	5,668
Missouri	130,348	141,824	123,655	140,676	140,652	127,540	149,557
New Jersey	11,206	13,573	6,926	16,035	20,217	15,128	16,941
Wisconsin	11,057	15,273	17,538	20,381	19,752	31,809	34,137
Montana	1,415	.....	900	4,725	12,408	22,115	14,196
New Mexico	555	136	134	3,961	4,911	3,778	6,882
Utah	2,449	1,972	282	5,960	7,221	7,004	7,756
Other States	6,306	11,040	7,801	9,181	13,860	15,171	27,929
Total domestic	199,694	223,745	190,749	230,225	252,479	271,621	323,907
Foreign—							
British Columbia	201	545	2,425	978	3,304	1,598	4,199
Mexico	24,875	25,570	17,250	24,557	13,401	13,307	10,700
Grand total	224,770	249,860	210,424	255,760	269,184	286,526	338,806

PRODUCTION OF SECONDARY SPELTER IN EUROPE and UNITED STATES

Compiled from statistics issued by Messrs. Rudolf Wolff, Kreuger & Co., of London, and the U. S. Geological Survey; (in tons of 2,000 lbs.)

	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Austria-Hungary	3,505	3,674	3,931	3,315	3,102	2,934	3,282	3,282
Belgium	4,044	4,473	3,620	4,295	3,564	3,406	3,288	4,138
France	14,304	14,898	15,130	20,309	20,467	20,691	24,345	25,077
Germany	9,689	11,040	11,316	13,273	14,943	15,133	16,022	21,093
Great Britain	7,913	7,644	7,168	8,714	8,454	7,605	9,296	7,963
Holland	2,268	2,800	2,957	2,923	2,184	2,610	2,722	3,730
Russia	1,680	.....	1,680	1,680	.....	224	1,184	1,353
United States	(a)	(a)	18,841	16,970	33,040	41,223	40,513	52,251
Total	43,403	44,529	64,643	71,479	85,754	93,826	100,652	118,887

(a) Statistics not collected.

EXPORTS OF ZINC ORE AND SPELTER.

Exports of domestic zinc ore and of plates, sheets, pigs and bars of domestic manufacture, in tons of 2,000 lbs.

	Zinc Ore.		Plates, sheets, pigs or bars.	
	Tons.	Value.	Tons.	Value.
1902..	55,733	$1,449,104	3,237	$300,557
1903..	39,411	987,000	1,521	163,379
1904..	35,911	905,782	10,147	1,094,490
1905..	30,946	848,451	5,516	682,254
1906..	27,720	733,300	4,670	583,526
1907..	20,352	579,490	563	75,194
1908..	26,108	877,745	2,640	250,254
1909..	12,455	412,300	2,566	263,010
1910..	19,711	649,425	3,990	426,560
1911..	18,281	642,884	6,872	810,099
1912..	23,349	823,997	6,634	864,292
1913*.	15,815	631,991	7,714	946,308

IMPORTS OF ZINC ORE AND SPELTER

(In tons of 2,000 lbs.)

	Zinc Ore.		Block or pigs and sheets.	
	Total ore.	Zinc content.		
	Tons.	Tons.	Tons.	Value.
1902...	.....	.....	516	$44,875
1903...	.....	.....	331	27,698
1904...	2,264	.....	358	36,441
1905...	22,137	.....	442	48,248
1906...	55,414	.....	1,043	243,868
1907..	103,117	.....	1,761	227,632
1908...	53,757	.....	813	82,730
1909..	114,850	.....	9,536	818,597
1910...	72,626	25,439	1,244	132,151
1911...	39,116	15,933	614	93,533
1912...	43,940	17,657	11,447	1,341,647
1913...	24,683	12,040	6,055	657,658

CONSUMPTION OF SPELTER IN THE UNITED STATES.

Consumption of Spelter in the United States, according to statistics issued by the U. S. Geological Survey, tons of 2,000 pounds.

SUPPLY.	1898.	1899.	1900.	1901.	1902.	1903.	1904.
Stock beginning of year	5,709	3,695	2,798	5,813	1,905	3,361	6 880
Production	115,399	129,051	123,886	140,822	156,927	159,219	186,702
Imports for consumption	1,303	1,392	961	357	448	202	341
Total available	122,411	134,138	127,645	146,992	159,280	162,782	193,923
WITHDRAWN.							
Stock at close of year ..	3,695	2,798	5,813	1,905	3,361	6,880	2,863
Exports, foreign	18	.....	23	.....	.....	.....	2
Exports, domestic	10,499	6,755	22,410	3,390	3,237	1,521	10,147
Total withdrawn	14,212	9,553	28,246	5,295	6,598	8,401	13,012
Domestic consumption..	108,199	124,585	99,399	141,697	152,682	154,381	180,911

CONSUMPTION OF PRIMARY SPELTER IN THE UNITED STATES.

Consumption of Primary Spelter in the United States, in tons of 2,000 lbs.

SUPPLY—	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Stock, Jan. 1st..	2,863	3,463							
In bond	.....	.....	.....	2	9	39	31	32	.....
At smelters ..	.....	.....	3,824	26,364	19,613	11,167	23,201	9,049	4,522
Production	203,849	224,770	249,860	210,424	255,760	269,184	286,526	338,806	345,575
Imports	521	1,043	1,778	881	9,454	1,960	609	11,115	6,056
Total available	207,233	229,276	255,462	237,671	284,836	282,350	310,367	359,002	356,153
WITHDRAWN—									
Exports foreign	19	1	9	8	334	4,758	11,276	6,286	5,802
" drawback	.....	.....	1,555	1,234	.....	4,486	3,079	1,219	5,751
" domestic	5,516	4,670	563	2,640	2,566	3,990	6,872	6,634	7,714
Stock, Dec. 31st	1,260	3,824							
In bond	.....	.....	2	9	39	31	32	48	.....
At smelters..	.....	.....	26,364	19,613	11,167	23,201	9,049	4,474	36,395
Total withdrawn	6,795	8,495	28,493	23,504	14,106	36,466	30,308	18,661	55,662
Consumption	200,438	220,781	226,969	214,167	270,730	245,884	280,059	340,341	300,491

SPELTER

For all Purposes

Including the Famous

HORSE HEAD

AND

BERTHA

HIGH GRADE BRANDS

OXIDE OF ZINC

SULPHURIC ACID

SPIEGELEISEN

The New Jersey Zinc Co.

55 WALL STREET

NEW YORK CITY

GRADES OF PRIMARY SPELTER.

The American Society for Testing Materials adopted, in June, 1911, the following standard specifications for primary or virgin spelter:

	Maximum Impurities,			Total not over.
	Lead.	Iron.	Cadmium.	
High grade*	0.07	0.03	0.05	0.10
Intermediate*	0.20	0.03	0.50	0.50
Brass special*	0.75	0.04	0.75	1.20
Prime western	1.50	0.08	....	....

*To be free of aluminum.

Marks: A brand shall be cast in each slab by which the maker and grade can be identified.

Lots: The maker shall use care to have each carload of as uniform a quality as possible.

Physical: The slabs must be reasonably free from surface corrosion or adhering foreign matter.

Sampling: Not less than 10 slabs shall be taken as a sample from each car; for smaller lots in the same proportion to the total number, but in no case less than 3 slabs. In case of dispute half of the sample is to be taken by the maker and half by the purchaser; the whole to be mixed.

The slabs selected as samples are to be sawed completely across and the sawdust used as a sample. In case no saw is available for this purpose the slabs should be drilled completely through and the drillings cut up into short lengths. The saw or drill used must be thoroughly cleaned. No lubricant shall be used in either sawing or drilling and the sawdust or drilling must be carefully treated with a magnet to remove any particles of iron derived from the tools.

ESTABLISHED 1865

Granby Mining and Smelting Company

SMELTERS OF THE GRANBY BRANDS

OF

Soft Missouri Pig Lead

High Grade Spelter

For Quotations Address

Granby Mining & Smelting Co.

Suite 1705-10 Third National Bank Building

ST. LOUIS, MO.

—OR—

Robert W. Conklin, Agent

165 BROADWAY

NEW YORK

SPELTER PRICES IN NEW YORK.

Highest, lowest and average yearly prices of spelter in New York.

Year.	Highest.	Lowest.	Average.
1884	4.62½	4.00	4.44
1885	4.62½	4.00	4.34
1886	4.60	4.25	4.40
1887	5.62½	4.40	4.62½
1888	5.50	4.50	4.91
1889	5.40	4.62½	5.02
1890	6.17½	5.00	5.55
1891	6.00	4.65	5.02
1892	4.90	4.35	4.63
1893	4.50	3.55	4.08
1894	4.00	3.25	3.52
1895	4.35	3.10	3.63
1896	4.25	3.60	3.94
1897	4.35	3.75	4.12
1898	5.30	3.87½	4.57
1899	7.00	4.45	5.75
1900	4.80	4.10	4.40
1901	4.50	3.90	4.08½
1902	5.62½	4.10	4.90
1903	6.25	4.70	5.62
1904	6.12½	4.75	5.17
1905	6.65	5.30	6.00
1906	6.85	6.00	6.27½
1907	7.25	4.35	6.20½
1908	5.17½	4.35	4.74
1909	6.50	4.75	5.52
1910	6.35	5.25	5.66
1911	7.00	5.50	5.91
1912	7.65	6.45	7.11
1913	7.35	5.10	5.80
Average for 30 years			5.00

The Grasselli Chemical Company

Manufacturers of

HIGH GRADE

BRASS MILL SPECIAL

PRIME WESTERN

SPELTER

Also

Cadmium, Zinc Anodes, Battery Zincs, Zinc Dust, Sherardizing Zinc.

Sulphuric Acid, Muriatic Acid, Sal Ammoniac, Grasselli Tinning Flux and other heavy chemicals.

The Grasselli Chemical Co.

SALES OFFICES

CLEVELAND, O.
784 The Arcade

NEW YORK CITY
80 Maiden Lane

SPELTER PRICES IN ST. LOUIS.

Average monthly prices of Prime Western Spelter, East St. Louis delivery.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	4.73	6.13	6.40	6.65½	4.43	5.03½	6.00½	5.35	6.39½	7.04
February .	4.73	6.02½	5.94	6.76	4.74	4.81	5.52	5.40	6.53	6.25
March	4.85	6.00	6.12	6.78	4.60	4.65	5.53	5.46	6.74	6.08
April	5.06	5.77	5.98	6.63	4.53½	4.84	5.36	5.30	6.66	5.59
May	4.94	5.39	5.90	6.40	4.49	4.98	5.10	5.22	6.71	5.31
June	4.64	5.10	6.04	6.35	4.45	5.29	5.02	5.44	6.85½	5.05
July	4.77	5.28½	5.91	6.03	4.36½	5.28	5.02½	5.59	7.04	5.23
August ...	4.78	5.62	5.91	5.60	4.57½	5.61	5.13	5.88	6.94	5.64
September.	4.96	5.75	6.11	5.16	4.64	5.68	5.38	5.87	7.37	5.65
October ..	5.08	5.97	6.14	5.34	4.65½	6.08	5.50	6.07½	7.39	5.27
November.	5.37	6.02½	6.29½	4.93	4.95½	6.25	5.84	6.52	7.32	5.15
December .	5.77	6.43½	6.50½	4.21	5.03	6.14	5.59	6.28	7.19	5.03
Average ..	4.97	5.79	6.10	5.90	4.62	5.39	5.42	5.70	6.93	5.61

Matthiessen & Hegeler Zinc Company

La Salle, Ill.

Smelters of

SPELTER

Choice Brass Special

and Manufacturers of

Sheet Zinc and Sulphuric Acid, Zinc for Leclanch Battery

Special sizes of Zinc cut to order. Rolled Battery Plates. Selected Plates for etchers' and lithographers' use. Selected Sheets for paper and card makers' use. Stove and wash board blanks.

SPELTER PRICES IN NEW YORK.

Average monthly prices of Prime Western Spelter in New York.

	1904	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	4.96½	6.30	6.55½	7.04	4.45	5.15	6.24	5.60	6.55	7.23
February ..	4.97½	6.22½	6.15	7.18	4.71½	4.96	5.86	5.70	6.70	6.49
March	5.05	6.17	6.23	7.19	4.76	4.83	5.75	5.67	6.93	6.29
April	5.26½	5.99½	6.11½	6.92	4.68	4.98	5.64	5.54	6.87	5.79
May	5.15½	5.65	6.10	6.64	4.65½	5.09	5.38	5.52½	6.89	5.51
June	4.81	5.43	6.20½	6.59½	4.61½	5.41½	5.36	5.67	7.05	5.23½
July	4.99	5.53	6.10	6.32	4.51	5.42	5.35	5.79	7.23	5.41
August ...	4.97	5.80	6.16	5.92½	4.73	5.70	5.36	6.04	7.13	5.80
September.	5.16	5.90	6.27½	5.40	4.78	5.78	5.59	6.04	7.55	5.83
October ..	5.30½	6.22½	6.28	5.52½	4.79½	6.18½	5.69	6.24	7.61	5.47
November.	5.59	6.19	6.44½	5.24	5.04	6.42	5.98	6.63½	7.50	5.34
December .	5.92½	6.57	6.69	4.51	5.14½	6.31	5.77½	6.51	7.36	5.22
Average ..	5.17	5.99½	6.27½	6.20½	4.74	5.52	5.66	5.91	7.11	5.80

Illinois Zinc Company

PERU, ILL.

Manufacturers Of

Spelter

Sheet Zinc

Strip Zinc

Sulphuric Acid

Eastern Sales Agent:

W. FISHER,

81 and 83 Fulton Street,
NEW YORK CITY.

Telephone, 139 Beekman.

SHEET ZINC PRICE CHANGES.

Changes in the base price of Sheet Zinc f.o.b. smelter, Illinois district, with price of Spelter East St. Louis, same date:

1904—	Sheet Zinc.	Spelter.
Nov. 17.	6.70	5.40
Nov. 21.	6.80	5.55
Nov. 28.	7.00	5.60
Dec. 24.	7.10	5.80
Dec. 30.	7.25	6.00
1905—		
Jan. 9...	7.50	6.10
May 12.	7.25	5.40
June 1..	7.00	5.10
July 31.	7.25	5.50
Aug. 11.	7.50	5.75
Dec. 2..	7.75	6.25
1906—		
Jan. 8..	8.00	6.55
Feb. 6..	7.75	5.97½
May 18.	7.65	5.85
June 11.	7.75	6.10
June 19.	7.90	6.10
July 2..	7.75	5.87½
Oct. 24.	7.90	6.20
Nov. 17.	8.00	6.30
Dec. 8..	8.10	6.50
Dec. 15.	8.25	6.50
1907—		
Jan. 8...	8.40	6.65
Feb. 16.	8.50	6.80
Mar. 27.	8.60	6.75
July 19.	8.35	5.90
Aug. 5..	8.10	5.75
Aug. 20.	7.75	5.55
Sept. 14.	7.50	5.02½
Nov. 25.	7.00	4.72½
1909—		
Mar. 8..	6.75	4.65
June 14.	7.00	5.30
Aug. 3..	7.25	5.40
Aug. 14.	7.50	5.62½
Oct. 11.	7.75	5.95
1910—		
Feb. 7..	7.50	5.65
Mar. 7..	7.75	5.60
April 28.	7.50	5.12½
Oct. 26.	7.75	5.65
Dec. 24.	7.50	5.37½
1911—		
April 7..	7.25	5.27½
June 22.	7.50	5.65
Aug. 4	7.75	5.80
Aug. 14.	8.00	5.95
Nov. 18.	8.25	6.55
Nov. 25.	8.50	6.75
Dec. 11.	8.25	6.10
Dec. 27.	8.00	6.20
1912—		
Feb. 14.	8.25	6.45
Mar. 8..	8.50	6.75
Mar. 21.	8.65	6.67½
July 8..	8.75	7.02½
Sept. 12.	8.90	7.37½
Sept. 25.	9.00	7.42½
1913—		
Feb. 3..	8.75	6.60
Feb. 17.	8.50	6.20
Feb. 26.	8.25	6.07½
Mar. 31.	8.00	5.80
Aprl 22.	7.75	5.45
May 20.	7.50	5.30
June 7..	7.25	5.10
June 26.	7.00	5.05
July 23.	7.25	5.22½
July 30.	7.50	5.42½
Aug. 15.	7.75	5.65
Aug. 29.	8.00	5.80
Oct. 6..	7.75	5.37½
Oct. 16.	7.50	5.17½
Dec. 3..	7.25	5.00

JOPLIN ZINC AND LEAD ORE SHIPMENTS.

The following table gives sixteen years shipments of zinc and lead ores from the Joplin District together with separate and combined values:

	ZINC ORES.		LEAD ORES.		Combined
	Tons.	Value.	Tons.	Value.	Value.
1913	287,164	$11,965,027	47,661	$2,492,976	$14,458,003
1912	299,408	15,539,528	45,306	2,540,249	18,079,777
1911	268,517	10,493,926	45,803	2,685,303	13,179,329
1910	296,671	11,919,583	44,416	2,335,432	14,255,015
1909	301,206	12,192,770	44,186	2,420,878	14,613,648
1908	259,598	8,917,073	39,119	2,152,896	11,069,969
1907	286,587	12,521,522	42,034	2,898,405	15,419,927
1906	278,929	12,079,602	39,188	3,049,573	15,129,175
1905	252,435	11,334,320	31,679	1,968,480	13,302,800
1904	267,240	9,601,200	34,362	1,886,150	11,487,350
1903	234,873	7,920,520	28,656	1,550,870	9,471,390
1902	262,545	7,973,770	31,625	1,457,120	9,430,890
1901	258,306	6,353,950	35,177	1,617,700	7,971,650
1900	248,446	6,584,290	29,132	1,407,810	7,992,100
1899	255,088	9,590,456	23,888	1,272,008	10,862,464
1898	234,423	6,319,867	26,791	851,947	7,171,814
Total	4,291,436	$161,307,404	589,023	$32,587,797	$193,895,301

ZINC ORE PRICES.

Average monthly price of zinc blende ore at Joplin, Mo., according to the Engineering and Mining Journal.

	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
Jan.	31.50	32.12	51.94	49.33	46.90	37.60	38.48	45.32	40.44	43.54	52.22
Feb.	32.50	34.00	53.65	49.25	48.30	36.63	34.46	39.47	39.16	43.31	44.34
Mar.	35.75	36.00	47.40	45.60	49.75	36.19	34.77	39.78	38.62	49.25	44.62
Apr.	37.75	36.40	43.93	44.00	49.25	35.40	35.99	39.35	37.54	50.36	40.92
May	36.60	34.63	43.74	41.50	46.90	34.19	37.82	37.51	37.04	53.27	41.76
June	36.50	32.62	40.75	44.20	47.00	34.06	40.00	38.11	37.15	54.38	40.30
July	36.00	35.00	43.00	43.88	46.80	34.55	41.28	36.74	38.32	56.59	40.88
Aug.	36.00	37.00	50.24	44.38	44.56	36.53	44.56	37.32	40.35	53.27	44.54
Sep.	34.40	40.40	46.80	43.20	41.00	37.63	44.78	39.74	41.53	57.07	44.30
Oct.	34.40	40.00	49.37	42.50	41.75	35.95	46.04	40.80	40.92	55.97	40.07
Nov.	30.75	44.25	50.37	44.43	38.60	39.13	48.29	43.40	42.61	53.98	39.99
Dec.	30.00	46.13	47.67	45.55	31.50	42.75	47.97	43.10	40.76	52.39	37.50
Year	33.44	37.40	47.40	44.82	44.36	36.63	41.08	40.42	39.90	51.95	42.62

ZINC SMELTING CAPACITY OF THE UNITED STATES.

According to the Engineering and Mining Journal.
(Number of retorts at end of year.)

Name.	Location.	1913.
Altoona Zinc Smelting Co.	Altoona, Kan.	3,300
American Zinc Co. of Illinois	Hillsboro, Ill.	3,200
American Zinc, L. & S. Co., Caney, Kan. (3,648)	Dearing, Kan. (3,840)	7,488
Bartlesville Zinc Co. .. Collinsville, Okla. (8,064)	Bartlesville, Okla. (5,184)	13,248
Chanute Zinc Co.	Chanute, Kan.	(b)1,280
Collinsville Zinc Smelting Co.	Collinsville, Kan.	(b)1,536
Edgar Zinc Co. ..... St. Louis, Mo. (2,000)	Cherryvale, Kan. (4,800)	6,800
Granby Mining & S. Co. E. St. Louis, Ill. (3,240)	Neodesha, Kan. (3,760)	7,000
Grasselli Chemical Co. .... Meadowbrook, W. Va.	and Clarksburg, W. Va.	12,672
Hegeler Bros.	Danville, Ill.	1,800
Illinois Zinc Co.	Peru, Ill.	4,640
Lanyon-Starr Smelting Co.	Bartlesville, Okla.	3,456
Matthiessen & Hegeler Zinc Co.	La Salle, Ill.	5,256
Mineral Point Zinc Co.	Depue, Ill.	6,800
National Zinc Co. ..... Springfield, Ill. (3,200)	Bartlesville, Okla. (4,480)	7,680
Nevada Zinc Co.	Nevada, Mo.	(a)648
New Jersey Zinc Co.	Palmerton, Penn.	5,760
Pittsburgh Zinc Co.	Pittsburgh, Kan.	(b)910
Prime Western Spelter Co.	Gas City, Kan.	4,768
Sandoval Zinc Co.	Sandoval, Ill.	896
Tulsa Fuel & Manufacturing Co.	Collinsville, Okla.	6,232
United States Zinc Co.	Pueblo, Colo.	1,920
La Harpe Spelter Co.	La Harpe, Kan.	1,856
Robert Lanyon Zinc & Acid Co.	Hillsboro, Ill.	1,600

(a) Inactive. (b) Inactive during latter part of year.

WATERBURY SPELTER AVERAGE.

	1908.	1909.	1910.	1911.	1912.	1913.
Jan.	4.79	5.47½	6.48	5.77	6.78	7.56
Feb.	5.10	5.28	6.01	5.78	6.85	6.81
Mar.	5.06	5.07	5.98	6.01	7.17	6.56
Apr.	4.95	5.21	5.85	5.85	7.07	6.08
May	4.90	5.37	5.75	5.76	7.13	5.77
June	4.85	5.70	5.70	5.89	7.25	5.50
July	4.75	5.71	5.70	6.11	7.46	5.61
Aug.	5.00	5.97	5.80	6.29	7.34	5.99
Sep.	5.05	6.07	5.95	6.29	7.72	6.13
Oct.	5.07	6.41	6.10	6.49	7.83	5.74
Nov.	5.32	6.70	6.27½	6.90	7.74	5.60
Dec.	5.45	6.60	6.10	6.81	7.65	5.44
Av..	5.02	5.80	5.97	6.16	7.33	6.06½

EXPORTS OF ZINC FROM NEW SOUTH WALES.

(Tons of 2,000 lbs.)

	Concentrates.	Zinc Content.
1904	64,514	24,996
1905	115,956	34,313
1906	114,984	37.438
1907	264,601	85,842
1908	309,044	127,515
1909	418,775	161,300
1910	524,862	207,085
1911	578,343	213,321
1912	582,980	217,520

PRICES OF FOREIGN AND DOMESTIC SPELTER.

Compiled from annual averages.
Price per Pound (Exchange $4.87).

	New York.	London.	Difference.
1884	4.44c	3.14c	1.30c
1885	4.34	3.04	1.30
1886	4.40	3.10	1.30
1887	4.62½	3.30	1.32½
1888	4.91	3.93	.98
1889	5.02	4.30	.72
1890	5.55	5.05	.50
1891	5.02	5.05	—.03
1892	4.63	4.52	.11
1893	4.08	3.78	.30
1894	3.52	3.35	.17
1895	3.63	3.17	.46
1896	3.94	3.60	.34
1897	4.12	3.80	.32
1898	4.57	4.44	.13
1899	5.75	5.40	.35
1900	4.40	4.40	0
1901	4.08½	3.70	.38½
1902	4.90	4.03	.87
1903	5.62	4.56	1.06
1904	5.17	4.91	.26
1905	6.00	5.51	.49
1906	6.27½	5.88	.39½
1907	6.20½	5.18	1.02½
1908	4.74	4.38	.36
1909	5.52	4.82	.70
1910	5.66	5.01	.65
1911	5.91	5.49	.42
1912	7.11	5.74	1.37
1913	5.80	4.94	.86

SPELTER PRICES IN LONDON.

Monthly average prices of good ordinary brands of spelter.

	1912.			1913.		
January ...	£26	9s	11d	£26	2s	3d
February .	26	6	5	25	6	9
March	25	19	11	24	12	1
April	25	8	11	25	6	3
May	25	11	2	24	11	8
June	25	11	11	22	3	4
July	25	13	1	20	11	10
August	26	1	2	20	14	3
September.	26	17	0	21	2	11
October ...	27	5	10	20	12	3
November .	26	14	3	20	12	0
December..	26	0	4	21	4	0
Average ..	26	3	3	22	14	11

Yearly fluctuations.

	High.			Low.			Average.		
1892..	£22	15s	0d	£18	0s	0d	£20	16s	0d
1893..	18	7	6	16	10	0	17	8	0
1894..	16	7	6	14	5	0	15	8	7
1895..	15	8	9	13	10	0	14	12	2
1896..	18	15	0	14	2	6	16	11	10
1897..	18	2	6	16	15	0	17	9	10
1898..	24	15	0	17	17	6	20	8	9
1899..	28	15	0	19	15	0	24	17	2
1900..	22	15	0	18	10	0	20	5	6
1901..	18	18	9	16	0	0	17	0	7
1902..	19	17	6	16	7	6	18	10	11
1903..	23	18	9	19	15	0	20	19	5
1904..	25	10	0	21	2	6	22	11	10
1905..	29	2	6	23	5	0	25	7	7
1906..	29	10	0	24	0	0	27	1	6
1907..	28	2	6	19	10	0	23	16	9
1908..	21	17	6	18	0	0	20	3	6
1909..	23	6	3	21	1	3	22	2	11
1910..	24	5	0	21	12	6	23	0	0
1911..	27	17	6	22	17	6	25	3	2
1912..	27	12	6	25	0	0	26	3	3
1913..	26	5	0	20	5	0	22	14	11

ALUMINUM

Ingots Sheet
Wire
Bars Tubing

Aluminum Wire and
Cable for Electrical
Conductors :: :: ::

ALUMINUM COMPANY
OF AMERICA

PITTSBURG, PA.

PRODUCTION AND CONSUMPTION OF ALUMINUM IN THE UNITED STATES.

		Pounds.
1883-5		516
1886		3,000
1887		18,000
1888		19,000
1889		47,468
1890		61,281
1891		150,000
1892		259,885
1893		333,629
1894		550,000
1895		920,000
1896		1,300,000
1897		4,000,000
1898		5,200,000
1899		6,500,000
1900		7,150,000
1901		7,150,000
1902		7,300,000
1903		7,500,000
1904	Consumption	8,600,000
1905	"	11,347,000
1906	"	14,910,000
1907	"	17,211,000
1908	"	11,152,000
1909	"	34,210,000
1910	"	47,734,000
1911	"	46,125,000
1912	"	65,607,000
1913	" (estimated)	73,000,000
Total		378,358,779

Guiterman Rosenfeld & Co.

35 South William Street

NEW YORK

London **Hamburg**

IMPORTERS

of

ALUMINUM

Virgin Ingots **Pure Sheets**
Strip **Coils** **Circles**
Tubing **Extruded Shapes**
Shot **Foil** **Powder**

PLATINUM

Iridium **Palladium**
Sheets **Wire**

Tungsten Cobalt

And other metals used by makers of high grade steels

Chinese Tin

ALUMINUM PRICES.

Monthly average prices of pure aluminum (98-99%) in New York.

	1909.	1910.	1911.	1912	1913.
Jan.	24.00	22.37	21.98	18.75	26.31
Feb.	23.50	24.00	21.49	18.75	26.20
Mar.	23.00	23.94	21.25	18.94	26.72
April	23.00	23.75	21.25	19.58	26.91
May	23.00	23.68	20.94	20.70	25.95
June	22.34	23.02	20.06	21.92	24.79
July	22.50	22.80	20.00	22.99	23.34
Aug.	23.06	22.35	19.98	23.75	22.73
Sept.	23.50	22.25	19.80	24.50	22.00
Oct.	23.50	22.26	19.32	26.83	20.32
Nov.	23.50	22.78	19.25	27.06	19.49
Dec.	23.24	22.61	18.80	26.46	18.85
Year	23.18	22.97	20.34	22.52	23.63

FOREIGN PRICES OF ALUMINUM.

Approximate yearly average prices of aluminum at European works, as reported by the Metallgesellschaft.

	Marks. per kilo	Equivalent cents per lb.
1900	2.00	21.58
1901	2.00	21.58
1902	2.35	25.37
1903	2.35	25.37
1904	2.35	25.37
1905	3.50	37.78
1906	3.50	37.78
1907	3.50	37.78
1908	1.75	18.89
1909	1.35	14.56
1910	1.45	15.65
1911	1.20	12.95
1912	1.50	16.18

The Bradford Company

752 Broadway, New York

Importers of

ALUMINUM

Ingots Rods

Sheets

Tubes Wire

C. W. Leavitt & Co.

30 Church St., New York

ORES - METALS - ALLOYS

Agents for

"H. H." Brand French

ANTIMONY

and

GIROD

ELECTRIC STEEL FURNACE
AND FERRO ALLOYS

WORLD'S PRODUCTION OF ALUMINUM.

(Tons of 2,000 lbs.)

Compiled from the statistics issued by the Metallgesellschaft.

	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
United States and Canada..	3,640	3,750	4,300	4,960	6,615	8,815	6,615	17,640	21,610	24,250	28,982
Germany, Austria, Switzerland .	2,750	2,750	3,305	3,305	3,860	4,410	4,410	5,510	8,815	8,815	13,227
France	1,550	1,760	1,875	3,305	4,410	6,615	6,615	6,615	10,470	11,025	14,329
England	660	770	770	1,100	1,100	1,985	2,200	3,085	5,510	5,510	8,267
Italy, Norway.	.....	.....	.....	.....	.....	.....	660	1,550	1,875	1,875	2,534
Total, about...	8,600	9,030	10,250	12,670	15,985	21,825	20,500	34,400	48,280	51,475	67,339

IMPORTS OF ANTIMONY.

(In pounds)

Years.	Metal and regulus.	Crude. and ore.
1900	3,654,822	6,089,134
1901	3,640,505	1,682,301
1902	5,388,739	3,129,069
1903	4,694,309	2,714,617
1904	4,268,045	2,488,518
1905	4,941,247	1,970,788
1906	10,305,734	1,972,658
1907	9,600,901	2,771,387
1908	8,089,915	3,287,218
1909	9,557,956	3,453,542
1910 metal contents	9,899,514	
1911 "	10,957,844	
1912 "	17,645,870	
1913* "	12,810,829	

* Eleven months.

PRODUCTION OF ANTIMONIAL LEAD IN THE UNITED STATES.

(In tons of 2,000 lbs.)

	Antimonial lead.	Antimony contents.
1900	9,906	.....
1901	10,656	.....
1902	9,169	.....
1903	9,579	.....
1904	11,001	.....
1905	10,995	.....
1906	10,546	.....
1907	9,910	1,561
1908	13,629	2,440
1909	12,896	2,360
1910	14,069	2,229
1911	14,078	2,254
1912	13,552	1,949
1913	16,338	.....

COOKSONS ANTIMONY.

Average monthly prices of Cookson's Antimony in New York.

	1904.	1905	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	7.24	8.69	14.84	25.74	9.31	8.11	8.50	8.13	7.59	9.66
February .	8.12½	8.30	15.68	25.48½	9.14	8.01	8.50	8.46	7.22	9.31
March	8.00	8.21	17.26	25.16	8.88	7.95	8.49	9.50	7.52	9.03
April	7.96	8.74	21.01	23.99	8.81	8.14	8.36	9.47	8.00	9.00
May	7.80	9.00	26.55	21.55	8.73	8.25	8.37½	9.48	8.00	8.77
June	7.37½	11.68½	26.60	16.83½	8.65½	8.26½	8.28	8.86	8.00	8.63
July	7.45	13.93	25.11	12.05	8.48	8.33	8.20½	8.50	8.26	8.47
August ...	7.02½	16.32	24.85	10.98	8.25	8.55	8.17½	8.44½	8.51	8.38
September.	7.00	14.08	25.10	10.48	8.09	8.53	8.18	8.27	8.84	8.30½
October ...	7.20½	12.99	25.48	11.78	8.10	8.40	8.15	8.08	10.22	7.66
November.	8.60	13.16	25.96	10.78	8.21	8.37	8.02	7.94	10.31	7.52
December .	9.60½	13.88	25.75	9.60	8.12½	8.37½	7.64	7.81	10.06	7.45
Average ..	7.78	11.58	22.85	17.03½	8.56½	8.27	8.24	8.58	0.54	8.52

HALLETTS ANTIMONY.

Average monthly prices of Hallett's antimony in New York.

	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	24.52	8.92	8.04	8.26	7.62½	7.61	9.18½
February	24.21	8.93	7.86	8.27	8.01	7.41	9.00
March	23.24	8.76	7.74½	8.25	9.20	7.49	8.66
April	20.88	8.64½	7.79	8.18	8.97	7.75	8.35
May	17.83	8.73	7.75	8.13	9.01	7.75	8.23
June	13.98	8.50	7.79	8.04	8.49	7.75	8.11
July	11.01	8.09	7.79	7.96	8.04	7.79	8.05
August	9.91	7.95	8.25	7.87½	7.77½	.87	7.93
September	9.89	7.88	8.31	7.84	7.76	8.31	7.75½
October	10.62	7.94	8.15	7.80	7.69	9.48	7.31
November	9.76	8.09	8.12½	7.74	7.70	9.64	7.26
December	8.80	8.13½	8.20	7.65	7.70	9.40	7.06
Average	15.39	8.37	7.98	8.00	8.16	8.19	8.07½

HUNGARIAN ANTIMONY.

Average monthly price of Hungarian grade antimony (ordinary brands) in New York.

	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January	23.79	8.25	7.57	7.50	7.15	6.89	8.77½
February	23.62½	8.24	7.27	7.44	7.53	6.78	8.16
March	22.68	7.85	7.11	7.33	8.75	6.78	7.91
April	20.70	8.07	7.23	7.31	8.34	6.87	7.82
May	17.59	8.05	7.24	7.30	8.06	6.98	7.75
June	13.37	7.94	7.14	7.30	7.38	7.07	7.62
July	9.53	7.65½	7.14	7.29	7.32	7.37	7.55
August	8.81½	7.55	7.55	7.25	7.22	7.58	7.48
September	9.28	7.44	7.52½	7.22	7.13	8.00	7.31
October	10.01	7.50	7.46½	7.15	6.94	9.11	6.46
November	8.67	7.46	7.53	7.13	6.94	9.11	6.28
December	8.04	7.65	7.50	7.03	6.97	9.05	6.05
Average	14.67½	7.80	7.35	7.27	7.48	7.63	7.43

PRODUCTION OF SILVER IN THE UNITED STATES.

Production of Silver in the United States as reported by the Director of the Mint (in fine ounces):

Year.	Quantity.	Commercial Value.
1880	30,318,700	$34,717,000
1881	33,257,800	37,657,500
1882	36,196,900	41,105,900
1883	35,732,800	39,618,400
1884	37,743,800	41,921,300
1885	39,909,400	42,503,500
1886	39,694,000	39,482,400
1887	41,721,600	40,887,200
1888	45,792,700	43,045,100
1889	50,094,500	46,838,400
1890	54,516,300	57,242,100
1891	58,330,000	57,630,000
1892	63,500,000	55,662,500
1893	60,000,000	46,800,000
1894	49,500,000	31,422,100
1895	55,727,000	36,445,500
1896	58,834,800	39,654,600
1897	53,860,000	32,316,000
1898	54,438,000	32,118,400
1899	54,764,500	32,858,700
1900	57,647,000	35,741,100
1901	55,214,000	33,128,400
1902	55,500,000	29,415,000
1903	54,300,000	29,322,000
1904	57,682,800	33,456,000
1905	56,101,600	34,222,000
1906	56,517,900	38,256,400
1907	56,514,700	37,299,700
1908	52,440,800	28,050,600
1909	54,721,500	28,455,200
1910	57,137,900	30,845,500
1911	60,399,400	32,615,700
1912	63,766,800	39,197,500
Total	1,664,093,500	1,259,940,700

SILVER PRICES IN NEW YORK.

Average monthly prices of Silver in New York, per fine ounce.

	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.
January ...	57.05	60.69	65.29	68.67	55.67	51.75	52.37	53.79	56.22	62.93
February .	57.59	61.02	66.11	68.83	56.01	51.47	51.53	52.22	59.04	61.64
March	56.74	58.05	64.60	67.52	55.36	50.47	51.45	52.74	58.37	57.87
April	54.20	56.60	64.76	65.46	54.50	51.43	53.22	53.33	59.23	59.49
May	55.43	57.83	66.98	65.98	52.79	52.90	53.87	53.31	60.88	60.36
June	55.67	58.43	65.39	67.09	53.66	52.54	53.46	53.04	61.29	58.99
July	58.10	58.92	65.10	68.14	53.11	51.04	54.15	52.63	60.66	58.72
August ...	57.81	60.26	65.95	68.74	51.68	51.12	52.91	52.17	61.61	59.29
September.	57.12	61.69	67.93	67.92	51.72	51.45	53.30	52.43	63.08	60.64
October ..	57.92	62.03	69.52	62.43	51.43	50.92	55.49	53.34	63.47	60.79
November.	58.45	63.85	70.81	58.67	49.65	50.70	55.64	55.72	62.79	58.99
December .	60.56	64.85	69.05	54.56	48.77	52.23	54.43	54.90	63.37	57.76
Average ..	57.22	60.35	66.79	65.32	52.86	51.50	53.49	53.30	60.83	59.79

WORLD'S PRODUCTION OF GOLD.

The record of gold output of the world since the gold discoveries of 1848 in Australia and California is given below. Estimates for years 1849 to 1873 are from a British Parliamentary report of 1876, based on the figures of Tooke, Newmarch, and the London Economist. For 1873 and afterwards they are derived from the United States Mint reports.

	Gold output.		Gold output.
1849	$27,100,000	1881 ...	$103,023,000
1850	44,450,000	1882	101,996,000
1851	67,600,000	1883	95,392,000
1852	135,150,000	1884	101,729,000
1853	140,400,000	1885	108,435,000
1854	141,400,000	1886	106,163,000
1855	151,200,000	1887	105,775,000
1856	161,250,000	1888	110,197,000
1857	138,225,000	1889	123,489,000
1858	122,055,000	1890	118,848,000
1859	107,290,000	1891	130,650,000
1860	93,415,000	1892	146,651,000
1861	112,270,000	1893	157,494,000
1862	110,590,000	1894	181,175,000
1863	100,575,000	1895	198,763,000
1864	94,980,000	1896	202,251,000
1865	101,270,000	1897	236,073,000
1866	108,600,000	1898	286,879,000
1867	103,500,000	1899	306,724,000
1868	97,570,000	1900	254,570,000
1869	106,415,000	1901	260,993,000
1870	92,250,000	1902	296,737,000
1871	108,965,000	1903	327,702,000
1872	87,845,000	1904	347,377,200
1873 .. .	96,200,000	1905	380,288,000
1874	90,750,000	1906	402,503,000
1875	97,500,000	1907 ...	412,966,000
1876	103,700,000	1908	442,477,000
1877	113,947,000	1909	454,145,000
1878	119,092,000	1910	454,704,000
1879	108,778,000	1911	467,449,000
1880	106,436,000	1912	466,000,000
* *Estimated.*		1913* ...	455,000,000

PRODUCTION OF GOLD IN THE UNITED STATES.

According to figures issued by the Director of the Mint. (Fine ounces).

Year.	Quantity.	Value.
1880	1,741,500	$36,000,000
1881	1,678,612	34,700,000
1882	1,572,187	32,500,000
1883	1,451,250	30,000,000
1884	1,489,950	30,800,000
1885	1,538,373	31,801,000
1886	1,686,788	34,869,000
1887	1,603,049	33,136,000
1888	1,604,478	33,167,500
1889	1,594,775	32,967,000
1890	1,588,877	32,845,000
1891	1,604,840	33,175,000
1892	1,597,098	33,015,000
1893	1,739,323	35,955,000
1894	1,910,813	39,500,000
1895	2,254,760	46,610,000
1896	2,568,132	53,088,000
1897	2,774,935	57,363,000
1898	3,118,398	64,463,000
1899	3,437,210	71,053,400
1900	3,829,897	79,171,000
1901	3,805,500	78,666,700
1902	3,870,000	80,000,000
1903	3,560,000	73,591,700
1904	3,892,480	80,464,700
1905	4,265,742	88,180,700
1906	4,565,333	94,373,800
1907	4,374,827	90,435,700
1908	4,574,340	94,560,000
1909	4,821,701	99,673,400
1910	4,657,018	96,269,100
1911	4,687,053	96,890,000
1912	4,520,717	93,451,500
Total	93,979,956	1,942,736,200

Gold value $20.67 per fine ounce.

PLATINUM.

Average monthly prices of platinum according to the Engineering and Mining Journal, at New York, per troy ounce.

	1908.	1909.	1910.	1911.	1912.	1913.
Jan.	$25.50	$24.10	$29.00	$39.06	$46.00	$45.50
Feb.	25.50	24.00	28.75	39.31	45.63	45.50
Mar.	25.50	23.75	29.13	41.00	45.50	45.50
Apr.	23.50	23.50	29.25	41.35	45.50	45.50
May	22.50	23.25	29.55	42.81	45.50	45.50
June	23.50	22.75	31.38	42.88	45.50	45.50
July	20.00	22.43	33.00	42.95	45.50	45.50
Aug.	18.75	22.65	33.00	44.38	45.50	44.90
Sep.	20.00	25.31	33.63	45.31	45.50	43.96
Oct.	21.50	27.75	37.50	46.25	45.50	44.00
Nov.	24.00	29.50	39.44	46.13	45.50	43.70
Dec.	24.00	29.50	38.75	46.00	45.50	43.45
Year	22.85	24.87	32.70	43.12	45.55	44.88

QUICKSILVER.

Average monthly prices of quicksilver at New York, per flask of 75 pounds.

	1908.	1909.	1910.	1911.	1912	1913.
Jan.	$45.00	$45.50	$52.20	$42.00	$43.00	$40.00
Feb.	45.00	45.50	50.00	48.69	45.50	40.00
Mar.	45.00	45.50	49.25	52.00	44.60	39.50
Apr.	45.00	45.00	48.00	49.40	42.06	39.14
May	45.00	44.50	47.60	45.00	41.56	39.19
June	44.25	44.50	47.00	43.75	41.40	39.67
July	44.00	43.75	47.00	48.00	42.50	39.00
Aug.	43.30	43.75	46.00	48.25	42.38	39.00
Sep.	42.87	45.00	46.00	46.88	42.00	39.00
Oct.	46.25	47.00	45.80	45.20	42.03	38.59
Nov.	46.60	52.50	43.88	45.00	42.03	38.00
Dec.	45.75	52.50	42.00	44.25	40.50	38.50
Year	*44.84*	46.30	47.06	46.54	42.46	39.13

COMMODITY PRICES.

This table gives "Bradstreet's" index numbers (the totals of the prices per pound of ninety-six articles) since January 1, 1908.

	1908.	1909.	1910.	1911.	1912.	1913.
Jan.	8.295	8.263	9.231	8.836	8.949	9.493
Feb.	8.129	8.032	9.073	8.766	8.958	9.459
Mar.	7.986	8.217	9.111	8.603	8.902	9.405
Apr.	8.065	8.316	9.200	8.522	9.098	9.297
May	7.963	8.302	9.039	8.458	9.270	9.139
June	7.723	8.396	8.911	8.529	9.102	9.072
July	7.822	8.457	8.925	8.594	9.112	8.952
Aug.	7.933	8.504	8.822	8.657	9.159	9.011
Sep.	7.905	8.591	8.952	8.819	9.215	9.100
Oct.	8.014	8.748	8.927	8.806	9.451	9.156
Nov.	8.067	8.964	8.877	8.892	9.478	9.220
Dec.	8.213	9.126	8.784	8.982	9.546	9.229

(Yearly Averages.)

1892	7.777	1903	7.936
1893	7.532	1904	7.919
1894	6.685	1905	8.099
1895	6.435	1906	8.418
1896	5.912	1907	8.905
1897	6.116	1908	8.009
1898	6.571	1909	8.515
1899	7.210	1910	8.989
1900	7.884	1911	8.713
1901	7.575	1912	9.186
1902	7.876	1913	9.211

PRODUCTION OF SECONDARY METALS IN THE UNITED STATES.

The secondary metals inc'ude those recovered from scrap metal sweep'ngs, drosses, etc.—whereas the metals derived from ore are known as "primary" metals.

(In tons of 2,000 pounds).

Metals.	1907	1908.	1909.	1910.	1911.	1912.
Secondary copper including that in alloys other than brass ..	30,240	11,500	25,396	51,000	50,845	66,441
Remelted brass	(a)	(a)	27,347	62,000	80,370	101,523
Secondary lead....	9,990	7,990	17,822	29,384	27,359	30,266
Recovered lead in alloys	15,508	10,543	23,327	25,939	26,895	36,902
Secondary spelter ..	18,841	16,970	33,040	41,223	44,714	52,251
Recovered zinc in alloys other than brass	1,417	665	1,181	2,709	3,223	3,912
Secondary tin	93	1,124	2,423	7,217	7,749	8,333
Recov'd tin in alloys	1,569	1,666	3,092	6,686	6,957	7,068
Secondary antimony	(a)	(a)	27	9	10	13
Recovered antimony in alloys	(a)	(a)	1,529	2,770	2,359	2,493

(a) Statistics not collected.

PRODUCTION OF SECONDARY METALS IN THE UNITED STATES.

(In point of Value.)

Metals.	1907	1908.	1909.	1910.	1911.	1912.
Secondary copper including that in alloys other than brass.	$11,188,800	$3,036,000	$6,602,960	$12,954,000	$12,711,250	$21,593,325
Remelted brass ...	(a)	(a)	5,863,181	13,032,400	16,814,400	27,279,516
Secondary lead and recovered in alloys	2,702,788	1,556,772	3,538,814	4,868,400	4,882,860	6,045,120
Secondary spelter and recovered in zinc alloys other than brass	2,390,444	1,657,690	3,695,868	4,744,300	5,464,800	7,750,494
Secondary tin and recovered tin in alloys	914,404	1,641,476	3,281,425	9,481,800	12,353,040	14,301,368
Secondary antimony and recovered antimony in alloys ...	(a)	(a)	257,362	444,600	359,040	426,020
Total value	$17,196,436	$7,891,938	$23,239,610	$45,525,500	$52,585,390	$77,395,843

(a) Statistics not collected.

VALUE OF METALLIC PRODUCTS OF THE UNITED STATES.

(According to U. S. Geological Survey.)

1880	$185,649,163
1881	187,549,908
1882	214,061,009
1883	196,547,259
1884	179,230,899
1885	172,491,087
1886	203,249,225
1887	236,598,254
1888	237,574,422
1889	247,768,701
1890	292,649,877
1891	282,617,183
1892	281,514,539
1893	219,436,649
1894	185,804,594
1895	245,874,431
1896	251,445,519
1897	265,209,975
1898	305,482,183
1899	487,831,631
1900	511,632,891
1901	480,006,859
1902	599,916,009
1903	583,433,948
1904	502,149,624
1905	700,418,946
1906	886,110,856
1907	904,855,142
1908	549,923,116
1909	754,281,705
1910	749,285,310
1911	680,531,782
1912	867,103,085
Grand total	13,648,235,781

OUR FOREIGN TRADE.

Exports and imports of merchandise of the United States, and yearly balance:

	Exports.	Imports.	Excess Exports.
1913*	$2,250,834,014	1,608,450,909	642,383,105
1912.	2,399,995,973	1,817,662,340	582,333,633
1911.	2,092,373,141	1,532,931,861	559,441,280
1910.	1,866,258,904	1,562,904,151	303,354,753
1909.	1,728,198,645	1,475,520,724	252,677,921
1908.	1,752,835,447	1,116,374,087	636,461,360
1907.	1,923,426,205	1,423,169,820	500,256,385
1906.	1,798,243,434	1,320,501,572	477,741,862
1905.	1,626,990,795	1,179,144,550	447,846,245
1904.	1,451,318,740	1,035,909,190	415,409,550
1903.	1,484,753,083	995,494,327	489,258,756
1902.	1,360,685,933	969,316,870	391,369,063
1901.	,465,375,860	880,419,910	584,955,950
1900.	1,477,916,118	829,149,714	648,796,393
1899.	1,275,467,971	798,967,410	476,500,561
1898.	1,255,546,266	634,904,448	620,581,818
1897.	1,099,709,045	742,595,229	357,113,816
1896.	1,005,837,241	681,579,556	324,257,865
1895.	824,860 136	801,669,347	23,190,789
1890.	857,502,548	823,397,726	34,104,822
1885.	688,249,798	587,808,673	100,381,125
1880.	889,683,422	696,807,176	192,876,246
1875.	510,947,422	503,162,936	7,784,486
1870.	403,586,010	461,122,058	†57,546,048

* Eleven months ended November.

† Excess of imports.

COMPARISON OF SECURITY PRICES.

Railroads	Range for 1911. High.	Low.	Range for 1912. High.	Low.	Range for 1913. High.	Low.	Jan. 2nd. 1914.
Atchison, Top. & Santa Fe..	116⅝	99⅞	111⅝	103½	106⅝	90½	93¾
Baltimore & Ohio	109⅜	93½	111⅛	101½	106⅝	90⅝	92¾
Canadian Pacific	247	195⅝	283	226½	266⅜	204	208⅜
Chicago, Mil. & St. Paul	133½	105⅜	117⅝	99⅜	116½	96⅜	99⅜
Erie R. R.	38⅝	27½	39⅛	30	32½	20½	27⅝
Great Northern, pfd.	140	119	143⅜	126	132⅝	115½	126½
Lehigh Valley	186⅞	151	185⅜	155⅞	168⅜	141½	149½
Louisville & Nashville	160⅜	136½	170	138	142½	126½	133½
Missouri, Kansas & Texas ...	38½	27	31⅝	25½	29½	18½	19⅜
Missouri Pacific	63	33½	47⅜	35	43⅝	21½	24½
New York Central	115½	99⅞	121½	106⅛	109⅜	90⅜	90⅞
N. Y., N. H. & Hartford.. ...	151⅛	126⅝	142½	126	129⅝	65⅝	76⅜
Northern Pacific	137⅞	110⅜	131½	115⅜	122⅝	101⅜	109⅜
Pennsylvania R. R.	130⅛	118⅜	186½	119⅞	123⅜	106	109½
Reading	161	134	179½	148½	171⅜	151⅜	168⅜
Rock Island	34⅜	22	30½	22⅜	24⅞	11⅝	13½
Southern Pacific	126⅝	104⅛	115½	103⅛	110	83	88⅝
Union Pacific	193⅜	153⅛	176⅜	150⅜	162⅜	137½	155

COMPARISON OF SECURITY PRICES. (Continued.)

Industrials.

Amalgamated Copper	71⅝	44⅝	92⅝	60	80½	61⅝	73
American Can	12½	8⅞	47⅜	11¼	46⅞	21	29⅝
American Can Pfd.	93⅜	77	126¼	90⅝	129½	80½	89⅝
American Car & Foundry ...	58¼	42⅝	63⅝	49⅜	56⅜	36½	45
American Locomotive	43¼	32⅛	47½	31⅝	44½	27	32¼
Am. Smelting & Refining	83⅞	56⅝	91	66½	74⅝	58½	63⅝
Colo. Fuel & Iron Co.	36⅜	25	43⅝	23⅛	41⅞	24⅛	28½
General Electric	168⅜	142	188½	155.	187	129⅝	138¼
International Harvester	129⅜	99⅛	126⅞	105¼	111½	96	101
International Steam Pump ...	44	23	34	12	18½	4½	6½
Lackawanna Steel	48	30	55½	28	49⅞	29⅞	38
National Lead	59	42⅛	68¼	51⅛	56¼	43	44
Republic Iron & Steel	35½	18	35⅛	15⅝	28⅜	17	20⅛
Republic Iron & Steel, pfd...	99½	74⅛	93⅜	64½	92½	72	80¼
Sloss-Sheffield	56¼	34	59⅝	39½	45½	23	28
U. S. Steel Corporation	82⅛	50	80¼	58¼	69⅛	49⅞	58⅛
U. S. Steel Corporation, pfd..	121⅛	103	117	107½	110⅝	102⅛	106¼
Utah Copper	57⅞	38	67½	52½	60⅝	39⅝	50⅛

SPECIFIC GRAVITY AND WEIGHTS.

Metals.	Weight per Cu. in. Pounds.	Weight per Cu. ft. Pounds.	Specific Gravity.
Aluminum	.096	166	2.66
Antimony	.242	418	6.70
Bismuth	.350	607	9.74
Brass, cast	.292	504	8.10
Brass, rolled	.303	524	8.40
Bronze (gun metal)	.305	529	8.50
Copper, cast	.314	542	8.70
Copper, rolled	.321	555	8.90
Gold, 24 carat	.694	1,204	19.26
Iron, cast	.260	450	7.21
Iron, wrought	.278	480	7.70
Lead, cast	.410	710	11.38
Mercury, 60 F.....	.489	846	13.58
Platinum	.779	1,342	21.50
Silver	.378	655	10.50
Steel, rolled	.283	490	7.85
Tin, cast	.266	459	7.35
Zinc, cast	.248	429	6.88

ENGLISH AND AMERICAN PRICE EQUIVALENTS.

(£1—$4.87)

Sterling per ton.	Cts. per lb.	Sterling per ton.	Cts. per lb.	Sterling per ton.	Cts. per lb.
£1..	.21	£31..	6.74	£61..	13.26
2..	.43	32..	6.96	62..	13.48
3..	.65	33..	7.18	63..	13.69
4..	.87	34..	7.40	64..	13.91
5..	1.08	35..	7.61	65..	14.13
6..	1.30	36..	7.83	66..	14.35
7..	1.52	37..	8.05	67..	14.56
8..	1.74	38..	8.26	68..	14.78
9..	1.95	39..	8.48	69..	15.00
10..	2.17	40..	8.70	70..	15.22
11..	2.39	41..	8.91	71..	15.44
12..	2.61	42..	9.13	72..	15.65
13..	2.83	43..	9.35	73..	15.87
14..	3.04	44..	9.57	74..	16.09
15..	3.26	45..	9.78	75..	16.31
16..	3.48	46..	10.00	76..	16.53
17..	3.70	47..	10.22	77..	16.74
18..	3.91	48..	10.44	78..	16.96
19..	4.13	49..	10.66	79..	17.18
20..	4.35	50..	10.87	80..	17.39
21..	4.57	51..	11.08	81..	17.51
22..	4.78	52..	11.30	82..	17.83
23..	5.00	53..	11.52	83..	18.05
24..	5.22	54..	11.74	84..	18.26
25..	5.44	55..	11.96	85..	18.48
26..	5.65	56..	12.18	86..	18.70
27..	5.87	57..	12.39	87..	18.91
28..	6.09	58..	12.61	88..	19.13
29..	6.31	59..	12.83	89..	19.35
30..	6.52	60..	13.04	90..	19.57

ENGLISH AND AMERICAN PRICE EQUIVALENTS.

(£1—$4.87)

Sterling per ton.	Cts. per lb.	Sterling per ton.	Cts. per lb.	Sterling per ton.	Cts. per lb.
£91..	19.78	£121..	26.30	£151..	32.83
92..	20.00	122..	26.52	152..	33.05
93..	20.22	123..	26.74	153..	33.26
94..	20.43	124..	26.96	154..	33.48
95..	20.65	125..	27.17	155..	33.70
96..	20.87	126..	27.39	156..	33.92
97..	21.09	127..	27.61	157..	34.13
98..	21.30	128..	27.83	158..	34.35
99..	21.52	129..	28.04	159..	34.57
100..	21.74	130..	28.26	160..	34.79
101..	21.96	131..	28.48	161..	35.00
102..	22.18	132..	28.70	162..	35.22
103..	22.39	133..	28.92	163..	35.44
104..	22.61	134..	29.14	164..	35.66
105..	22.83	135..	29.35	165..	35.87
106..	23.05	136..	29.57	166..	36.09
107..	23.26	137..	29.79	167..	36.31
108..	23.48	138..	30.00	168..	36.52
109..	23.70	139..	30.22	169..	36.74
110..	23.92	140..	30.43	170..	36.96
111..	24.13	141..	30.65	171..	37.18
112..	24.35	142..	30.87	172..	37.39
113..	24.57	143..	31.09	173..	37.61
114..	24.78	144..	31.31	174..	37.83
115..	25.00	145..	31.53	175..	38.05
116..	25.22	146..	31.74	176..	38.26
117..	25.43	147..	31.96	177..	38.48
118..	25.65	148..	32.18	178..	38.70
119..	25.87	149..	32.40	179..	38.92
120..	26.09	150..	32.61	180..	39.13

ENGLISH AND AMERICAN PRICE EQUIVALENTS.

(£1—$4.87)

Sterling per ton.	Cts. per lb.	Sterling per ton.	Cts. per lb.	Sterling per ton.	Cts. per lb.
£181..	39.35	£211..	45.87	£241..	52.40
182..	39.57	212..	46.09	242..	52.61
183..	39.79	213..	46.31	243..	52.83
184..	40.00	214..	46.53	244..	53.05
185..	40.22	215..	46.74	245..	53.27
186..	40.44	216..	46.96	246..	53.48
187..	40.66	217..	47.18	247..	53.70
188..	40.87	218..	47.40	248..	53.92
189..	41.09	219..	47.61	249..	54.14
190..	41.31	220..	47.83	250..	54.35
191..	41.53	221..	48.05	251..	54.57
192..	41.74	222..	48.27	252..	54.79
193..	41.96	223..	48.48	253..	55.01
194..	42.18	224..	48.70	254..	55.22
195..	42.40	225..	48.92	255..	55.44
196..	42.61	226..	49.13	256..	55.66
197..	42.83	227..	49.35	257..	55.88
198..	43.05	228..	49.57	258..	56.09
199..	43.26	229..	49.79	259..	56.31
200..	43.48	230..	50.00	260..	56.53
201..	43.70	231..	50.22	261..	56.74
202..	43.92	232..	50.44	262..	56.96
203..	44.13	233..	50.66	263..	57.18
204..	44.35	234..	50.87	264..	57.40
205..	44.57	235..	51.09	265..	57.61
206..	44.79	236..	51.31	266..	57.83
207..	45.00	237..	51.53	267..	58.05
208..	45.22	238..	51.74	268..	58.27
209..	45.44	239..	51.96	269..	58.49
210..	45.66	240..	52.18	270..	58.70

EQUIVALENTS OF TONS IN POUNDS.

(2,240 pounds to ton).

Tons.	Pounds.	Tons.	Pounds.	Tons.	Pounds.
1...	2,240	34...	76,160	67...	150,080
2...	4,480	35...	78,400	68...	152,320
3...	6,720	36...	80,640	69...	154,560
4...	8,960	37...	82,880	70...	156,800
5...	11,200	38...	85,120	71...	159,040
6...	13,440	39...	87,360	72...	161,280
7...	15,680	40...	89,600	73...	163,520
8...	17,920	41...	91,840	74...	165,760
9...	20,160	42...	94,080	75...	168,000
10...	22,400	43...	96,320	76...	170,240
11...	24,640	44...	98,560	77...	172,480
12...	26,880	45...	100,800	78...	174,720
13...	29,120	46...	103,040	79...	176,960
14...	31,360	47...	105,280	80...	179,200
15...	33,600	48...	107,520	81...	181,440
16...	35,840	49...	109,760	82...	183,680
17...	38,080	50...	112,000	83...	185,920
18...	40,320	51...	114,240	84...	188,160
19...	42,560	52...	116,480	85...	190,400
20...	44,800	53...	118,720	86...	192,640
21...	47,040	54...	120,960	87...	194,880
22...	49,280	55...	123,200	88...	197,120
23...	51,520	56...	125,440	89...	199,360
24...	53,760	57...	127,680	90...	201,600
25...	56,000	58...	129,920	91...	203,840
26...	58,240	59...	132,160	92...	206,080
27...	60,480	60...	134,400	93...	208,320
28...	62,720	61...	136,640	94...	210,560
29...	64,960	62...	138,880	95...	212,800
30...	67,200	63...	141,120	96...	215,040
31...	69,440	64...	143,360	97...	217,280
32...	71,680	65...	145,600	98...	219,520
33...	*73,920*	66...	147,840	99...	221,760

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